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THE HOSPITAL WORLD

Vol. XVIII Toronto, July, 1920 No. 1

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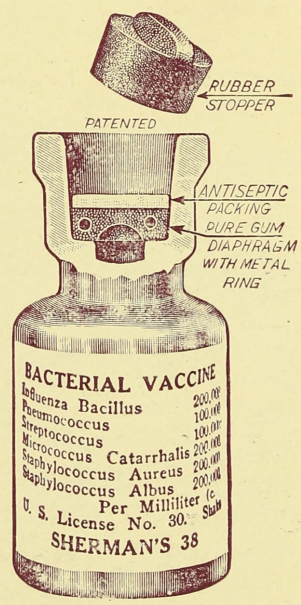


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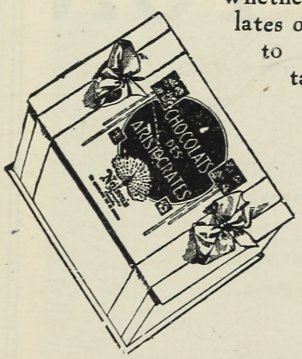
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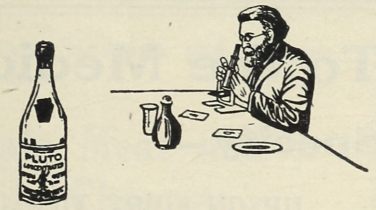
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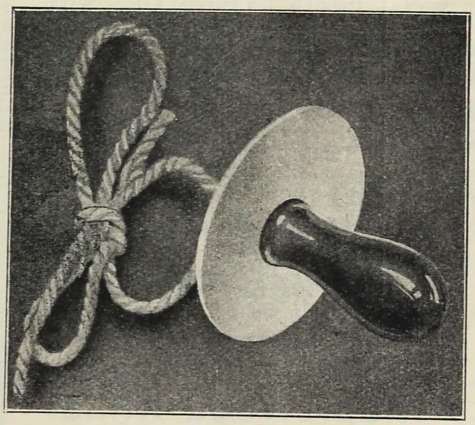
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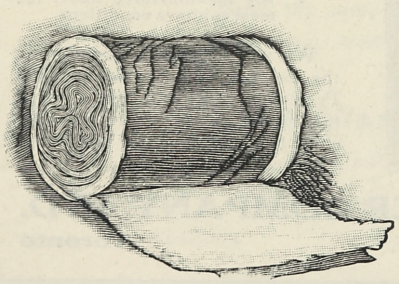
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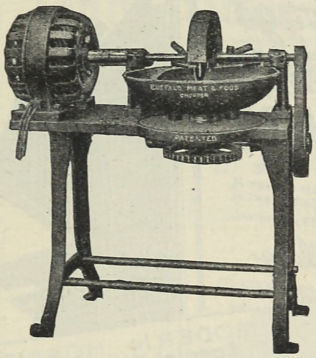
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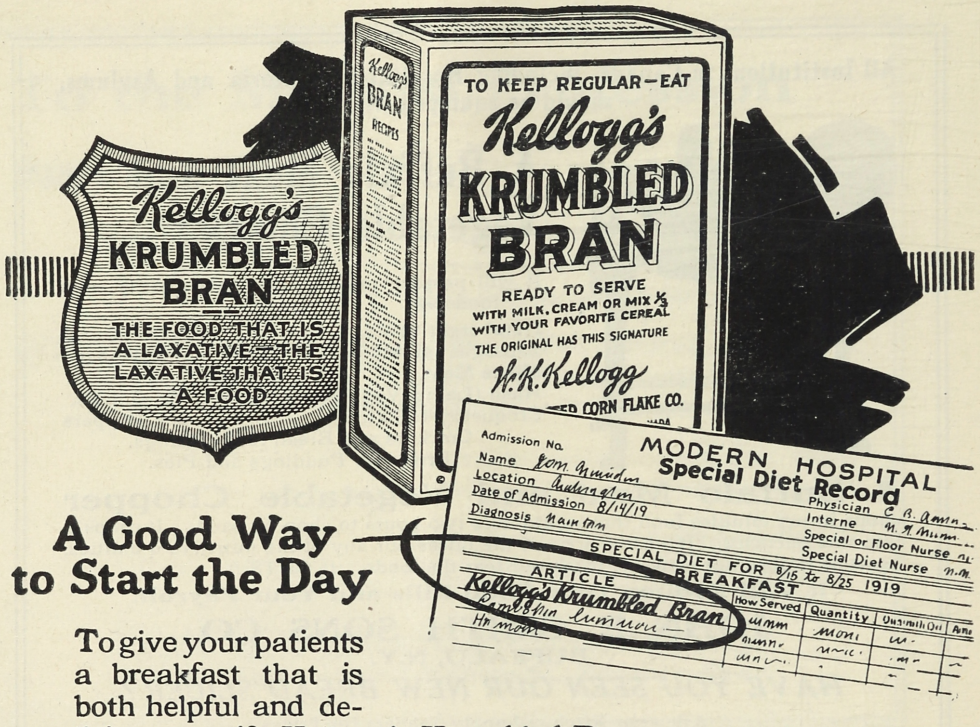
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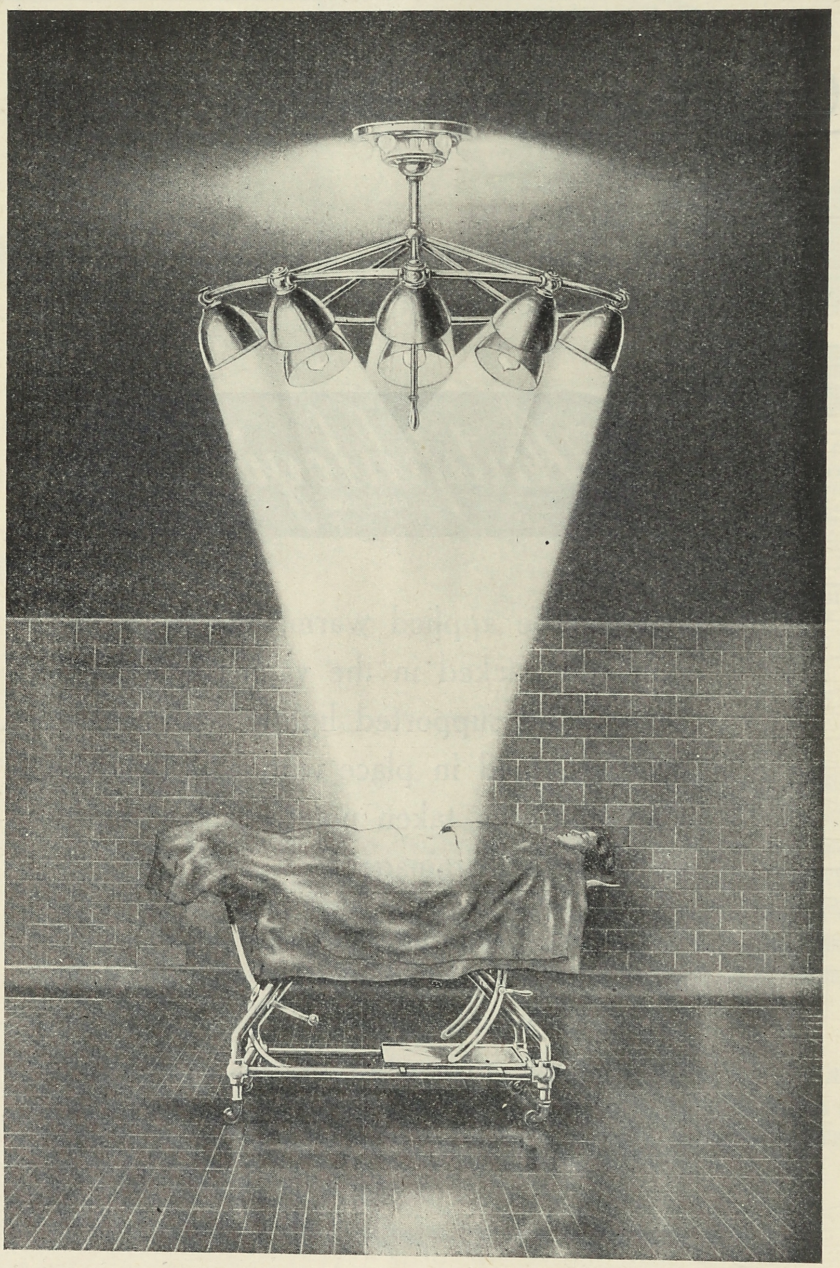
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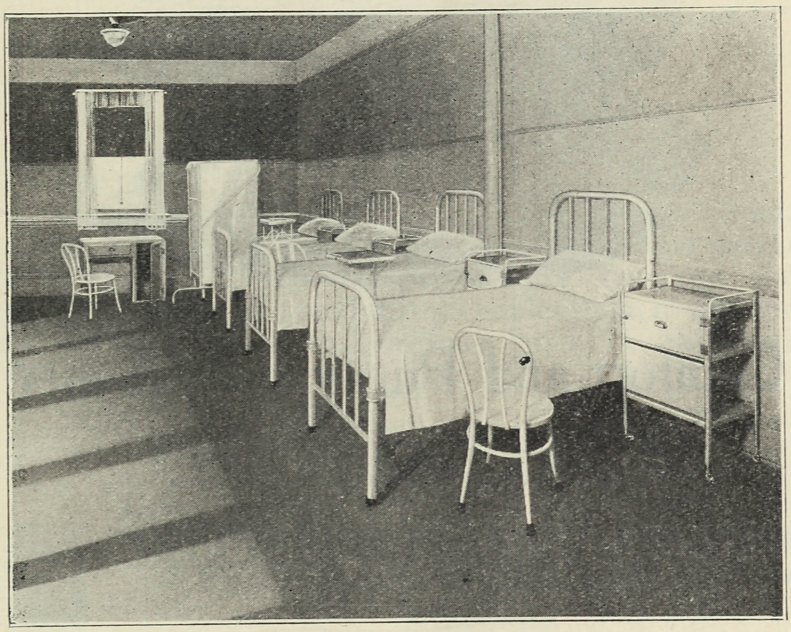
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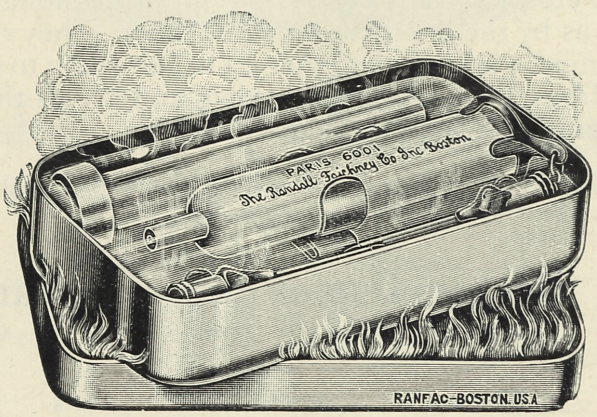
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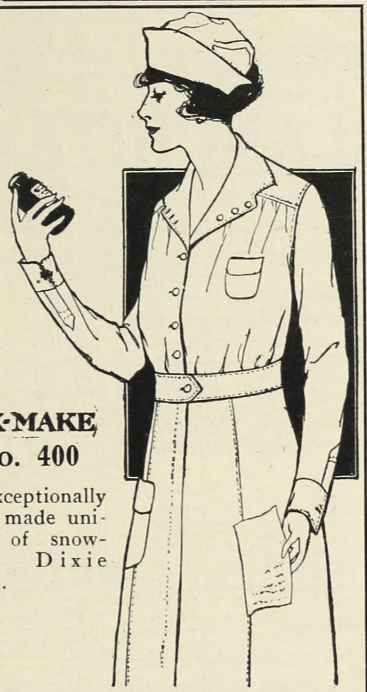
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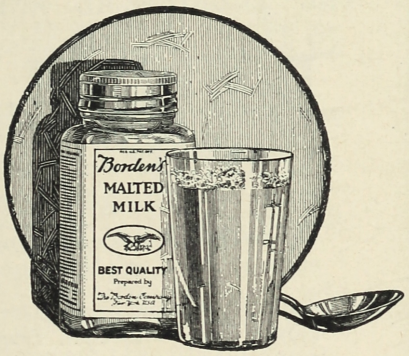
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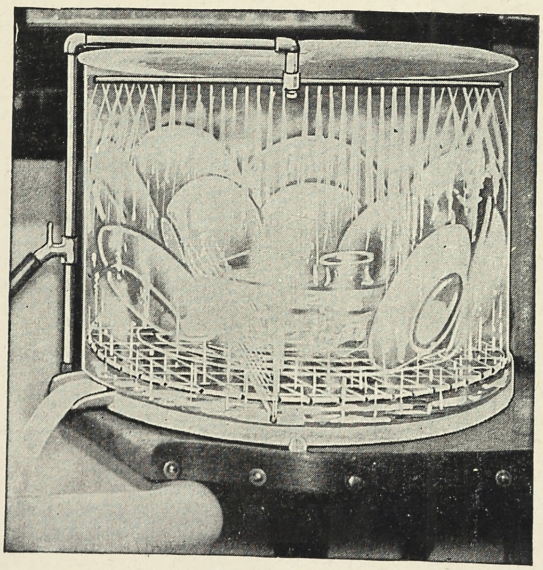
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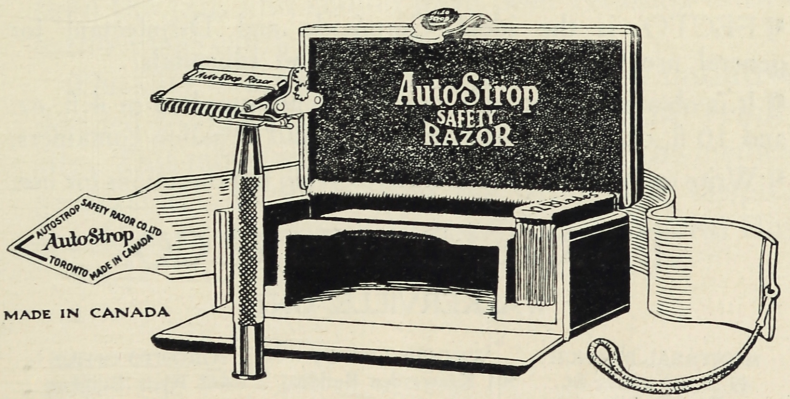
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The Hospital World

TORONTO, CANADA

A Journal published in the interests of Hospitals, Sanatoria, Asylums and Public Charitable Institutions throughout the British Empire

Vol. XVIII. TORONTO, JULY, 1920 No. 1

Editorials

TORONTO RECEPTION HOSPITAL

THAT Toronto citizens suffering from incipient brain disease have had no place in which to be treated except the jail, as declared in the *Toronto Star* recently, is a distinct stigma on Toronto the Good. If their appendices are diseased they are rushed instantly to one of the numerous hospitals for treatment. But for a whole year the patient, with disease of his most important organ, has no place in which to be properly treated. This condition of affairs is scandalous. The old Trinity College building was an abominable place, but—we think—better than the jail, and should have been retained until a better place could be secured.

The City Council, apparently of its own initiative, decided to build a reception hospital on the Trinity site. This move was properly opposed by the medical profession. In its opinion the psychiatric hospital should be in the vicinity of the Toronto General Hos-

pital, where such patients, suffering from concurrent diseases, might receive examination by neurologists, gynecologists, etc.; and where general hospital patients suffering from mental aberrations—as is frequently the case—could receive proper examination and treatment at the hands of the psychiatrists by means of the special equipment of the special mental pavilion.

Besides, medical students and nurses, most of whom are trained in practical bedside work at the General, Children's, and other central hospitals, would have a much better opportunity of studying this type of disease were the building for such patients contiguous to the General Hospital. Such is the plan adopted in the large continental hospitals; and at Albany, Ann Arbor, Cincinnati, Boston, and a few other places where the authorities have used any brains themselves.

We trust the Toronto City Council will direct their attention at once to this crying need.

MUNICIPAL HOSPITALS

In the main most of our hospitals hitherto have been built, and are being supported, by voluntary contributions, and administered by Boards consisting of our wealthy men, representing the larger businesses, and who contribute heavily themselves to these splendid institutions. To supplement these

private efforts constant appeals are being made by the hospital boards to the municipalities and provinces in which they are situated, and intermittent appeals are made to the public at large for voluntary contributions wherewith to build, endow, and maintain hospitals.

In this new day, to those who are watching the trend of affairs, it seems unfair to lay this great burden of building, supporting, equipping, and managing these great public institutions on such a small portion of the public which now rallies to their support.

The Great War has shown how hospitals can be carried on more efficiently by support of all the public through general taxation, and this experience points the way for the hospitals of the future—i.e., those designed for the rank and file of the people.

Just as in the army, the soldiers were closely watched, and as soon as the first sign of illness was manifested in any one of them, he was at once committed to the hospital and was given the necessary treatment at the hands of expert medical officers, no matter what his trouble. So in the great peace army of laborers, the time is near when the worker, discovered ill, will be committed at once to a hospital, where, as his right as a citizen—and not as a charitable object (as now), he will be given the care and treatment he requires, and restored to his place in the ranks as soon as possible.

More and more municipalities are taking this

great work over, and assuming much of the burden our voluntary hospitals have hitherto and are still doing.

Municipal hospitals are now being successfully operated in many cities, among the most prominent being: San Francisco, Boston, St. Paul's, Minneapolis, New York, St. Louis, Chicago, Louisville, Seattle, Indianapolis, Providence, and Cleveland.

INTERNES

IT would be a good thing for every medical man to have at least a year or two's training as an interne in a large general hospital, with a rotating service, spending several months in each department. The course will enable him to go into general practice with a practical knowledge of medicine and surgery which will give him confidence in himself and inspire confidence in his clients, providing, of course, that he is a man of good character, and has neither frittered his time nor wasted his opportunities while in college and hospital.

The hospital authorities have a duty to perform in the training of the interne. He should be provided with comfortable quarters, be given enough white duck suits for his work, and these should be laundered frequently enough to enable him to appear spotless at the bedside. His table should be amply provided with plain, nutritious food, which should be available at other than the regular hours, if his duties prevent

him—as they occasionally do—from being at table at the regular hour. He should be given a small honorarium for his services to enable him to meet extramural expenditure during his period of service to the hospital. There should be few rules for his guidance—the main, unwritten one, the golden rule, being taken for granted.

The medical staff ought to take a live interest in the house staff, more particularly in his scientific training. Each chief ought to see that his man takes a live interest in such patients as are assigned to their joint care. All patients should be treated with kindly consideration and receive a careful full examination, duly recorded, watched daily for fresh developments which should be noted in the progress notes, and accorded prompt and thorough treatment. Too much pains cannot be taken by these men. The method and spirit of the senior will be imitated by the junior. The senior should encourage the junior to make observations on his own initiative, and should be open to suggestions from the younger man in respect to treatment. In some hospitals, members of the visiting staff occasionally invite the house staff to their homes for dinner, or other function, something the juniors appreciate heartily as a rule.

House men can do much to assist senior students, who are allotted to their wards as clinical clerks and dressers, and may prove of much value in the teaching of nurses certain phases of their work.

Many practitioners to-day look back at the happy period of their interneship. As time goes on the

opportunities for internes increase in number and value, and it is to be hoped every young man seeking to become one will do his utmost to become worthy of the trust, and will fill the office with credit to himself, his chief, and the institution he serves.

TEACHING CHINESE

AFTER many years of work and sacrifice the old truth has dawned on medical missionaries that the best way to help people is to help them to help themselves. And so a big plan is on foot to establish hospitals, medical and dental colleges, in which young Chinese men and women will be taught medicine and surgery, dentistry and nursing. The Rockefeller Institute is actively helping in all parts of China except Western China. West China is represented by the province of Szechwan. Its capital is the big city of Chengtu. In this metropolis five religious denominations have established the West China Union University. This thriving young institution has forty buildings, in which nearly all branches are taught. It is proposed to establish a medical department in connection with the University, in which the secondary technical branches of medicine and surgery (including dentistry) will be taught. The primary branches—chemistry, physics and biology—are already studied. To build the two buildings required to start the college, $100,000 are needed. A few doctors and dentists under the leadership of the late

Richard A. Reeve, one-time president of the British Hospital Association, and Professor of Ophthalmology in Toronto University Medical Department, decide to appeal to the doctors, dentists, and nurses of Canada to undertake the raising of this amount of money. To this end Charles Service, M.D.C.M. of Trinity Medical College, Toronto, and B.A. of Toronto University, has visited Ontario, Manitoba, Saskatchewan, Alberta, and British Columbia, laying the needs and claims of the Chinese people before members of these professions. He has had a gratifying response in many places. The nurses of Toronto alone have subscribed over $2,500. We commend the movement to all our readers. If any of them wish to help, contributions may be sent to Dr. Walter Willmott, Secretary, Royal Dental College, Toronto. If any information or literature is desired the same may be procured from Dr. John N. E. Brown, 238 Bloor Street West, Toronto, and should any members of the professions in any city or town desire to have Dr. Service present the project to them, he will—up to August, 1920, when he returns to China—endeavor to meet them. His address is 208 Crawford Street, Toronto.

The Hospital World

(Incorporating The Journal of Preventive Medicine and Sociology)

Toronto, Canada

A Journal published in the interests of Hospitals, Sanatoria, Asylums and Public Charitable Institutions throughout the British Empire

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All Communications, Correspondence, and Matter regarding Subscriptions and Advertisements TO BE ADDRESSED TO "THE HOSPITAL WORLD," 145 COLLEGE ST., TORONTO, CANADA.

Reprints, including Half-tones, etc., Supplied Authors at Net Cost.

Original Contribution

CANADA'S MILITARY HOSPITALS*

By W. L. Symons,
Architect in charge of Military Hospitals.

The question of military hospitals, their inception and rapid development under the administration of the Military Hospitals Commission, has been dealt with in a former number of this magazine. Too much cannot be said in praise of the original organization, in its efforts to cope with a situation so new, so sudden, and so prodigious in its scope, as the caring for the ever-increasing flow of convalescents from the battlefields of France and Flanders.

The purpose of this article will be to record the further development of the work, and the gradual evolution in hospital planning and growth which has brought the work to its present state of completion.

On April 1st, 1918, the entire work of building and equipping military hospitals was transferred from the Military Hospitals Commission to the Chief Architect's Branch of the Public Works Department, Ottawa, and to the efforts of that staff are due the success which has attended the furtherance of this work to present stage of development.

The Department of Militia and Defence, under whose authority the control and maintenance of all military hospitals came upon completion, appointed a special committee at the time consisting of an expert in each branch of the Medical and Surgical Service. To this Board of Consultants were referred the plans for expert advice, and to this collaboration with the

* We are indebted to the publishers of "Construction" for the illustrations accompanying this article.

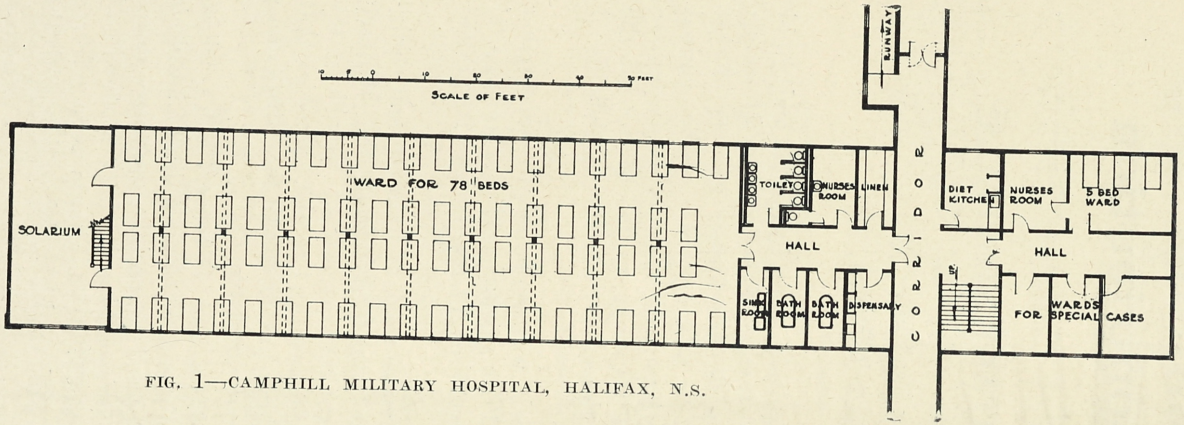


FIG. 1—CAMPHILL MILITARY HOSPITAL, HALIFAX, N.S.

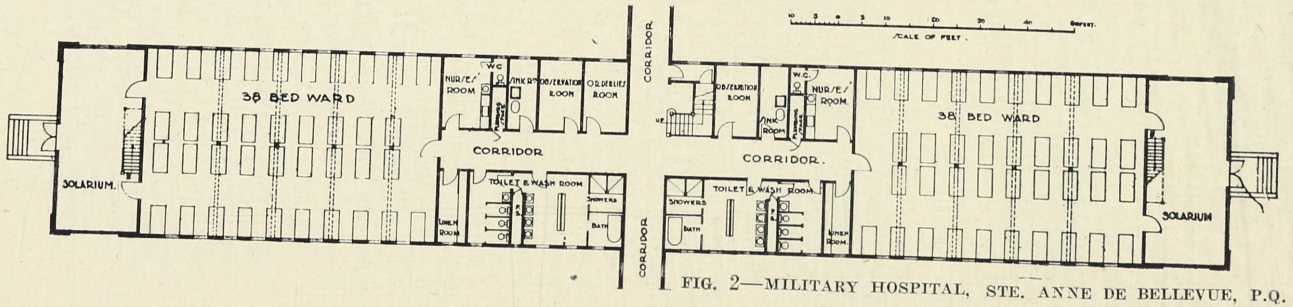


FIG. 2—MILITARY HOSPITAL, STE. ANNE DE BELLEVUE, P.Q.

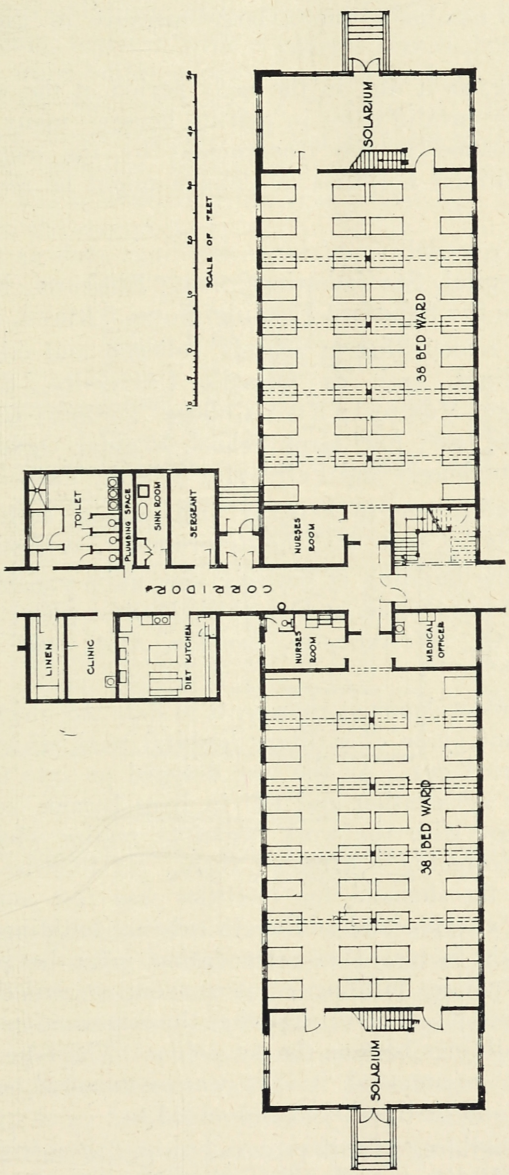


FIG. 3—MILITARY HOSPITAL, TUXEDO PARK, WINNIPEG.

architects is no doubt due a large measure of the success attained.

Beginning, as it did, in the early period of the war, with the caring for invalid cases in private houses—many of them generously loaned to the Government by the owners—the growth of military hospitals in Canada might be recorded as follows:

(*a*) The remodelling of large dwellings such as Oak Hill Military Hospital, St. Catharines, Ont.; Elmhurst, Kingston, Ont.; and the Sir Sandford Fleming House, Ottawa, Ont.

(*b*) The remodelling of schools, colleges, and other large public buildings, such as Queen's University, Kingston; Loyola College, Montreal; Knox College, Toronto; Ross Park School, Moose Jaw; Earl Grey School, Regina; Ogden Hotel, Calgary; Shaughnessy and Fairmount Schools, Vancouver, etc.

(*c*) By additions to existing institutions, such as the Asylum at Whitby, Ont., and the Reformatory, at Guelph, Ont.

(*d*) By the building of entirely new units capable of expansion, as, for example, at Camphill, Halifax; Ste. Anne de Bellevue. P. Q.; Westminster, London, Ont., and Tuxedo, Winnipeg.

The latter development represents to date the ultimate and most important phase of military hospital work which has so far been carried out. As the war dragged on into the third year and the devastation and toll in lives became very real, those entrusted with the work began to realize what a tremendous undertaking confronted them. It likewise became evident that the demand for facilities was fast outgrowing the policy of altering and adding to existing buildings. New buildings with increased accommodation must be provided, and on short notice, buildings of permanent construction were out of the question. Then it was that the construction of semi-temporary buildings became the set policy. The type adopted had much to recommend it. It was economical, could be quickly built and easily altered and added to.

The first building of this type and an entire unit was built at Camphill, Halifax, N.S. (See Fig. No. 1.) It consisted

of two ward buildings, each accommodating one hundred and fifty patients, together with a general service building.

These ward buildings were two storeys high, providing on each floor for one large ward of 76 beds. At one end of the ward was a connecting corridor, and adjacent to it were rooms for nurses, orderlies, toilets, and general utilities. At the other end was a large solarium with a stairway leading from the first to the second floor.

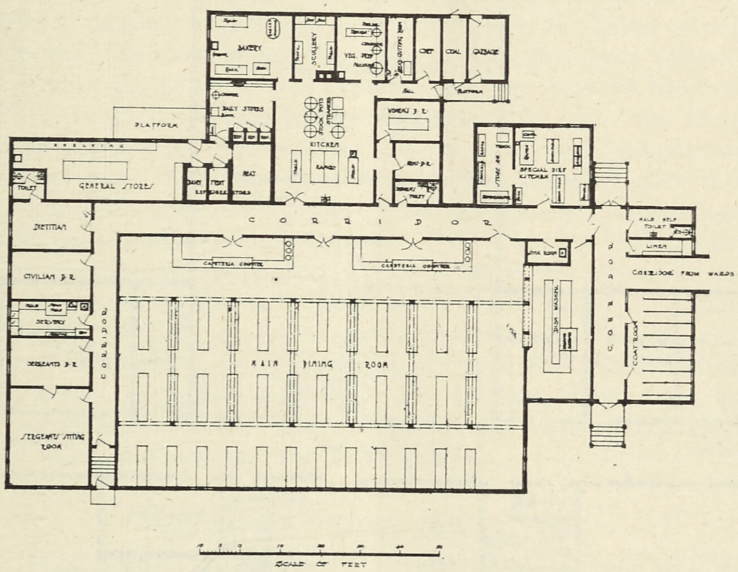


FIG. 5—GENERAL SERVICE BUILDING, CONVALESCENT HOSPITAL, STE. ANNE DE BELLEVUE, P.Q.

This arrangement of stairs was most workable, as it served to reduce the traffic through the wards, and at the same time would afford quick and easy exit in case of fire. The solarium was invariably made a most attractive lounge room, thanks to the efforts of the ladies of the local societies. As a description of this first type of unit was given in a former article it is unnecessary to go further into detail here. Suffice to say that as a first attempt it proved eminently satisfactory, so much so that duplicates were built at North Toronto and Winnipeg.

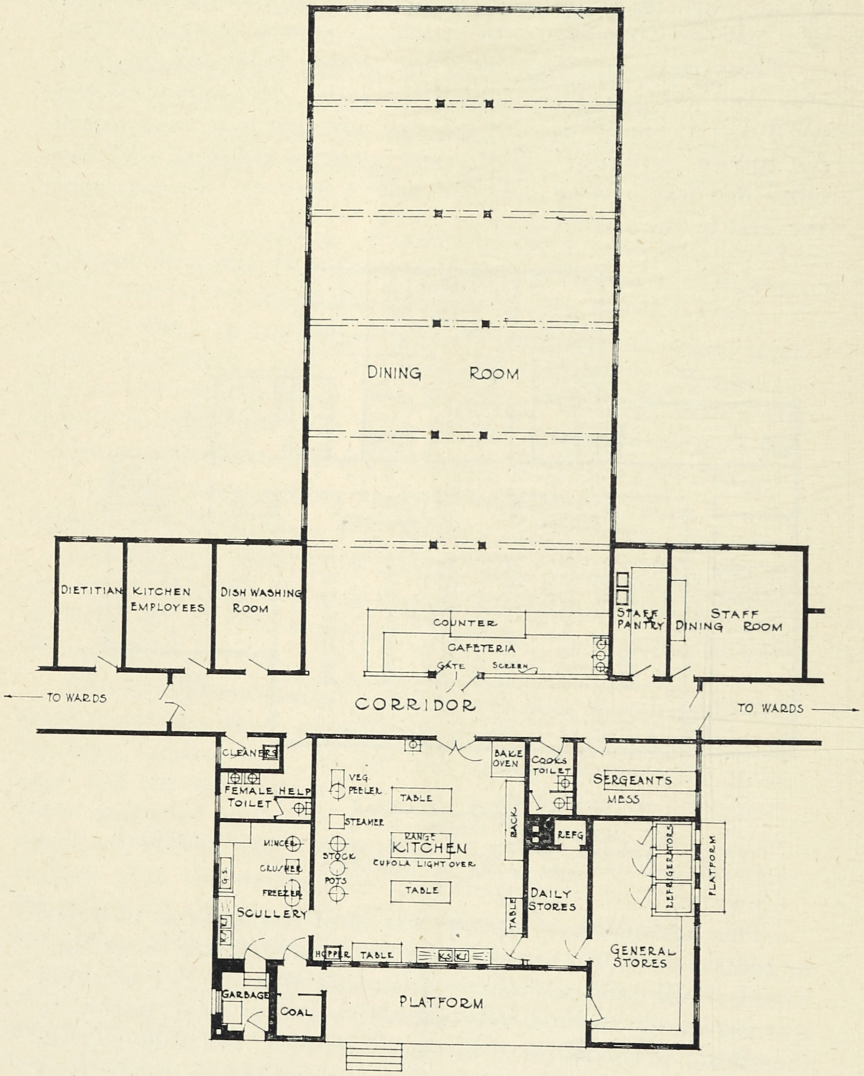


FIG. 6—MESS UNIT, FREDERICTON (N.B.) HOSPITAL.

Further study of the problem, however, suggested improvements which subsequently led to certain changes in the ward unit plan. The first development was incorporated in the next group of ward buildings erected at Camphill. (See Fig. No. 2.) Instead of the long ward, the floor space was divided into two self-contained wards of 37 beds each, with its full complement of nurses' and utility rooms, while the connecting corridor, instead of being at one end, was made to connect the units midway in their length. The advantages were manifest. The smaller number of patients in a ward made for better discipline and efficiency generally. This second plan was followed in some of the new wards at Cobourg and Ste. Anne de Bellevue. While very compact and workable, even this plan was found to be capable of improvement, and a third development was worked out. This last change made for economy, but it is still an open question whether it did not possess disadvantages sufficient to outweigh this feature. (See Fig. No. 3.) In this plan the nurses' and orderlies' rooms were left adjoining the ward, but all toilet and utility rooms were placed in a small separate building, a sort of enlargement of the through corridor. The chief improvement was in the farther removal from the wards of the odors from the diet kitchen, toilets, etc., but to offset this was the disadvantage of the distance the meals and other bed services had to be carried.

General Service Buildings.

One important feature of all the larger groups was the general service building, containing the kitchens with all accessory rooms, and dining-rooms. These buildings represented much study, and passed through several stages of development with each successive step making for a more workable and better systematized plan. The first was erected at the Davisville Hospital in North Toronto and consisted of a large kitchen containing the necessary equipment for preparing and cooking the food, and washing and sterilizing the dishes. The only additional rooms were for cold storage and garbage disposal. The main dining-room had a seating capacity equal to two-thirds of the total number of patients,

and adjoining were separate dining-rooms for nurses, orderlies, medical officers, etc.

At Fredericton and Ste. Anne de Bellevue this scheme was enlarged. (See Figs. No. 5 and 6.) The main kitchen contained only the ranges and other cooking equipment, while the food preparation, the bakery, dishwashing, refrigeration,

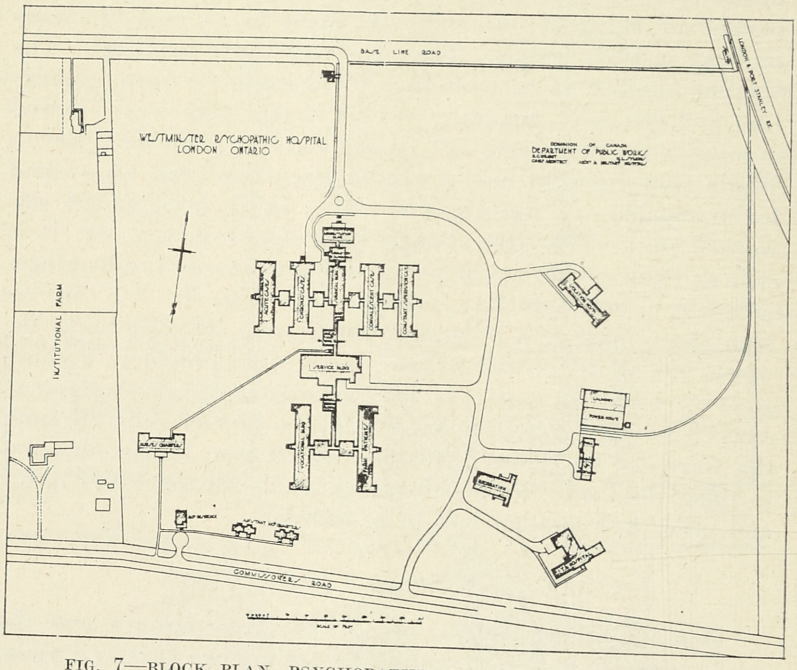


FIG. 7—BLOCK PLAN, PSYCHOPATHIC HOSPITAL, LONDON, ONT.

general stores, and garbage disposal had each a separate room opening off the main kitchen. As may be seen on the detailed plans, the main kitchen is lighted with clerestorey windows which provide excellent light as well as ventilation. The working equipment is of standard hotel heavy duty type, consisting of ranges, steam cookers, steam heated stock pots, steam tables, motor-driven vegetable peelers and food choppers, and for centres where the population exceeded 250, motor-driven dishwashing machines were installed.

The necessity of feeding a large number of men in a short time gave rise to the introduction of a cafeteria service. This innovation was first introduced at the Discharge Depots at Halifax and Quebec where all convalescents were cleared from inbound ships, as many as fifteen hundred patients being served at a single meal. The system worked so successfully here that it was thought wise to install it in some of the larger hospitals, such as Ste. Anne de Bellevue, where as many as seven hundred patients were often served.

At the larger centres refrigerating plants have been installed for cooling purposes and for the production of artificial ice. Also fully equipped steam laundries were provided, including steam sterilizers for bedding and clothing.

Medical and Surgical Departments.

The development outlined in the planning of the ward pavilions and service buildings also occurred in regard to the accommodation required for the various branches of medical and surgical work. As for instance, the laboratory department was originally housed in one room, but eventually the necessities of this department could only be met by the erection of a separate building. The same may be said of the accommodation for the dental service, X-ray, electrical treatment department and massage department.

The requirements consequent on research in these departments were developed so rapidly and were of such importance that in each case special rooms and equipment were found necessary, and subsequently each required a building for its own use.

Nor has the scientific equipment been neglected. On the contrary every department has been planned and outfitted along the most scientific lines known to the medical profession.

The surgical buildings contain, in addition to most up-to-date operating rooms, all the complementary rooms, such as preparation, sterilizing, X-ray, etc. There is also the necessary provision for the treatment of nose, ear and throat cases, and up-to-date dental suites. One of the most interesting features is the hydro-therapy department with its full comple-

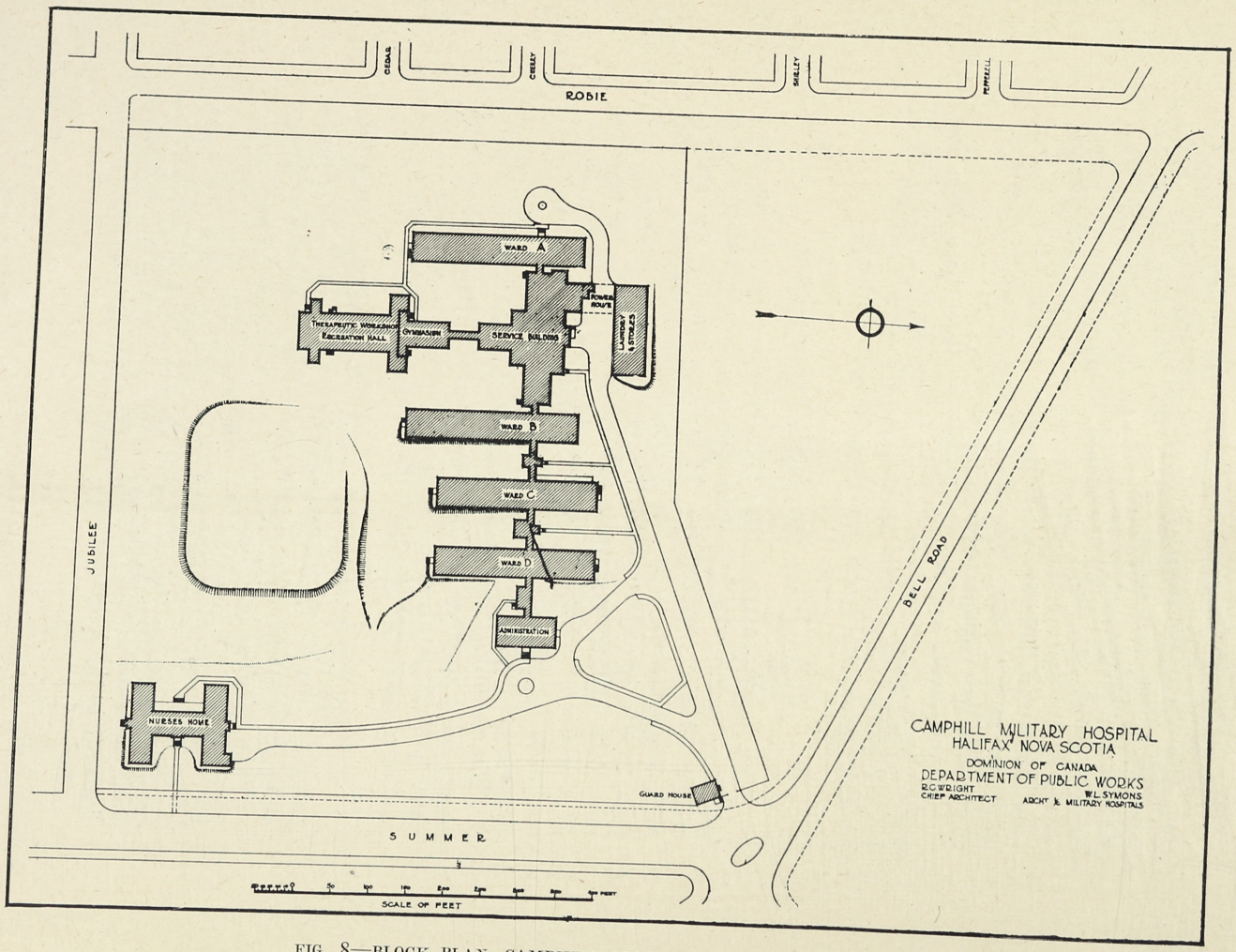


FIG. 8—BLOCK PLAN, CAMPHILL MILITARY HOSPITAL, HALIFAX, N.S

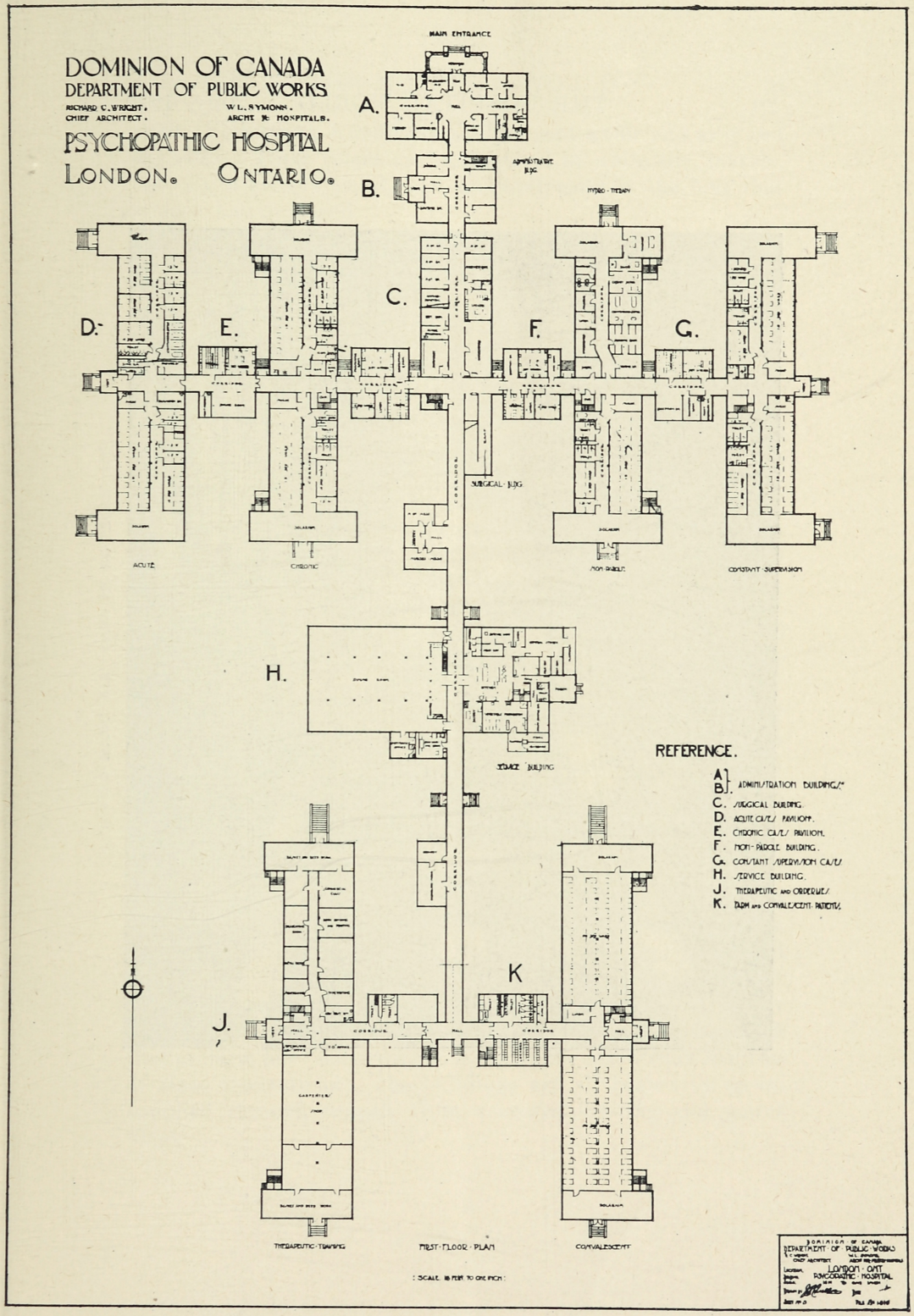
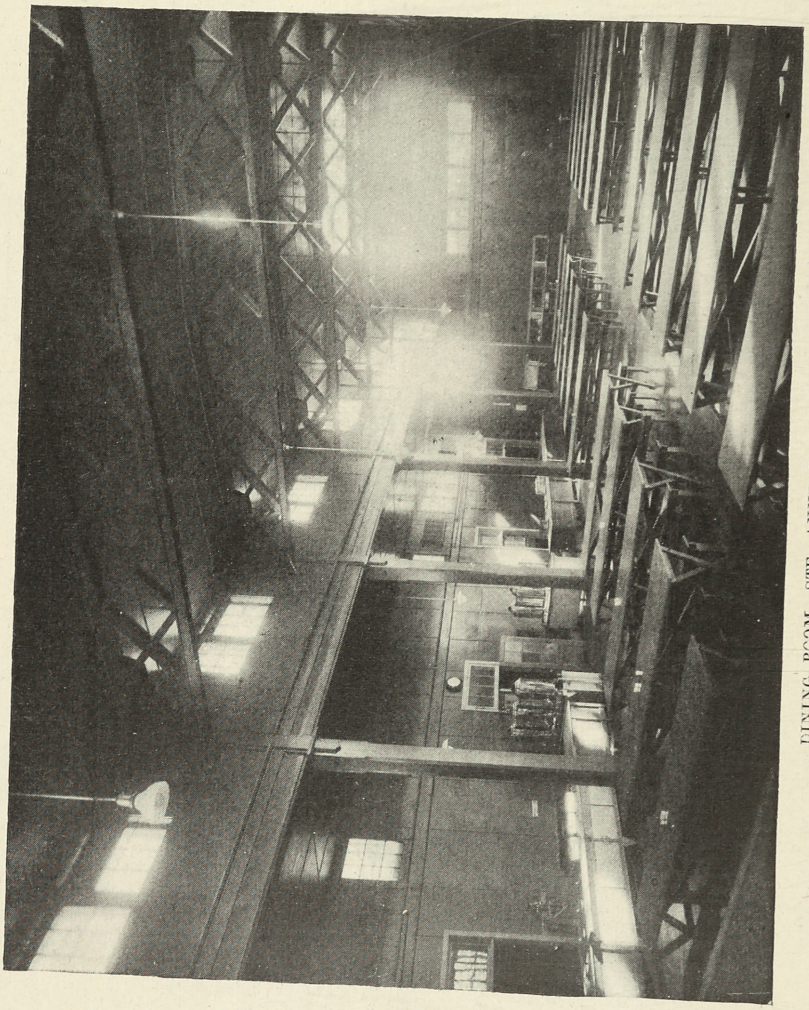


FIG. 9—FIRST FLOOR PLAN, PSYCHOPATHIC HOSPITAL, LONDON, ONT.



DINING ROOM, STE. ANNE DE BELLEVUE, P.Q.

ment of electrical, continuous hot and cold water and arm and leg baths. These rooms are immaculate in white tile, marble, and white enamel paint, and the equipment is the best that science has produced.

While endeavoring to evolve the best methods for restoring the health of the patient through modern equipment and efficient service, the thought was ever uppermost in the minds of all concerned as to their future welfare. This instituted what is known as the Vocational Branch under whose supervision was the work of industrial re-training and occupational therapy. This endeavored to reach beyond the physical aid and presented a two-fold value in that it aided recovery as well as equipping the patient for useful service after leaving the hospital.

Not the least interesting phase of the designing of these hospitals has been the grouping of the buildings. Every site, of course, presented its own problems, and the study given to the Block plan has contributed in no small degree to the successful working out of the schemes.

From the illustrations (see Figs 7, 8, 11) it will be noted that no two are alike, or even similar, while they all embody the same general requirements.

There is the main approach, with in most cases the guard house. Then the administration building around which the others are grouped, and in which accommodation is provided for the Officer Commanding and his staff, the matron, bursar, etc.; the service building containing the kitchen and dining-rooms, and the required number of ward buildings. The several units of this main group are all connected by corridors or covered ways, and then around this, conveniently placed on the site, are the homes for nurses, orderlies, medical officers, and at the larger centres a recreation building and vocational training building.

As the reader can readily realize, one big problem in our rigorous climate was that of heating, and the manner in which that problem has been overcome is one of the noteworthy features of these institutions. The buildings are all heated by steam supplied through tunnels from a central heating and power plant.

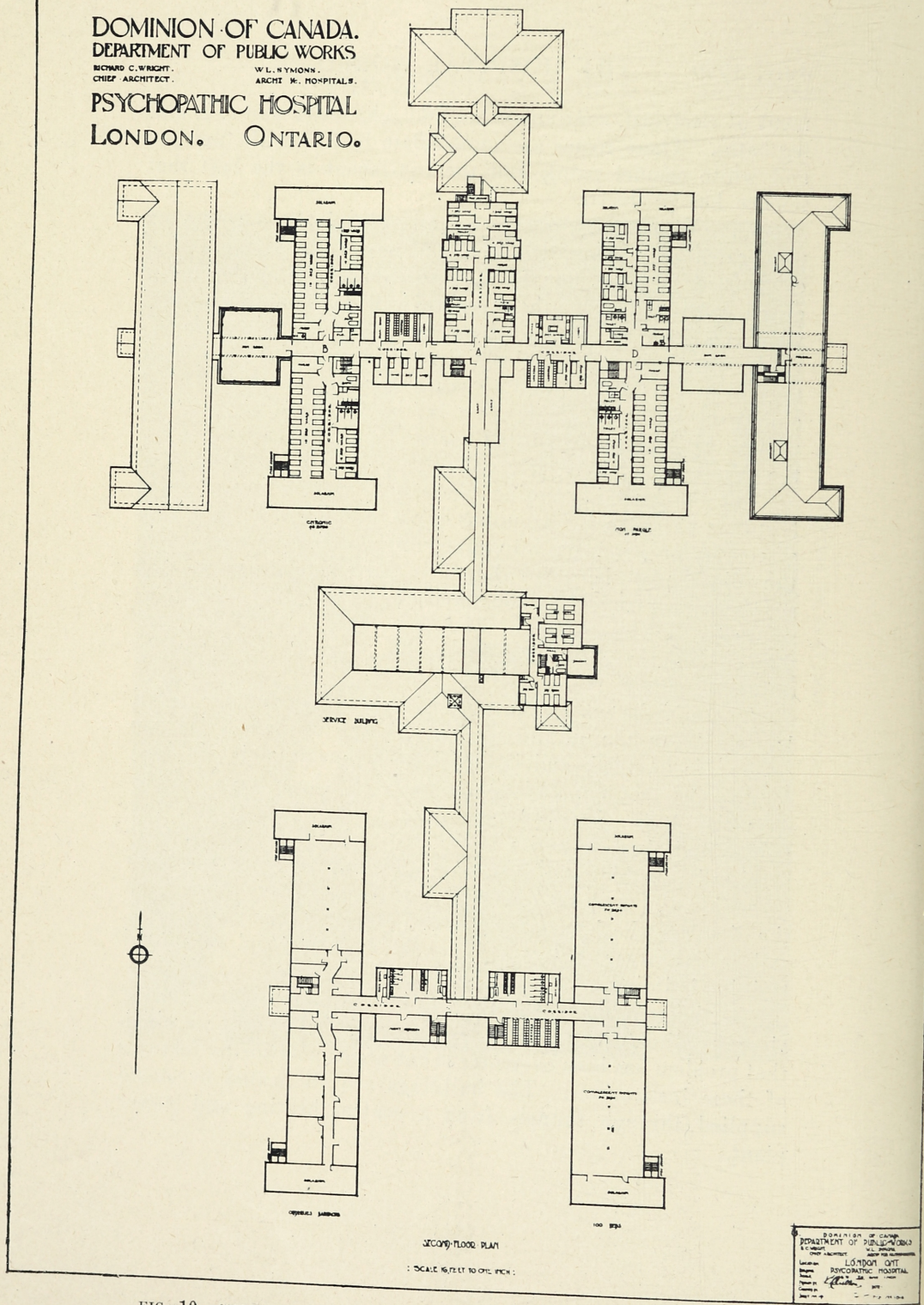


FIG. 10—SECOND FLOOR PLAN, PSYCHOPATHIC HOSPITAL, LONDON, ONT.

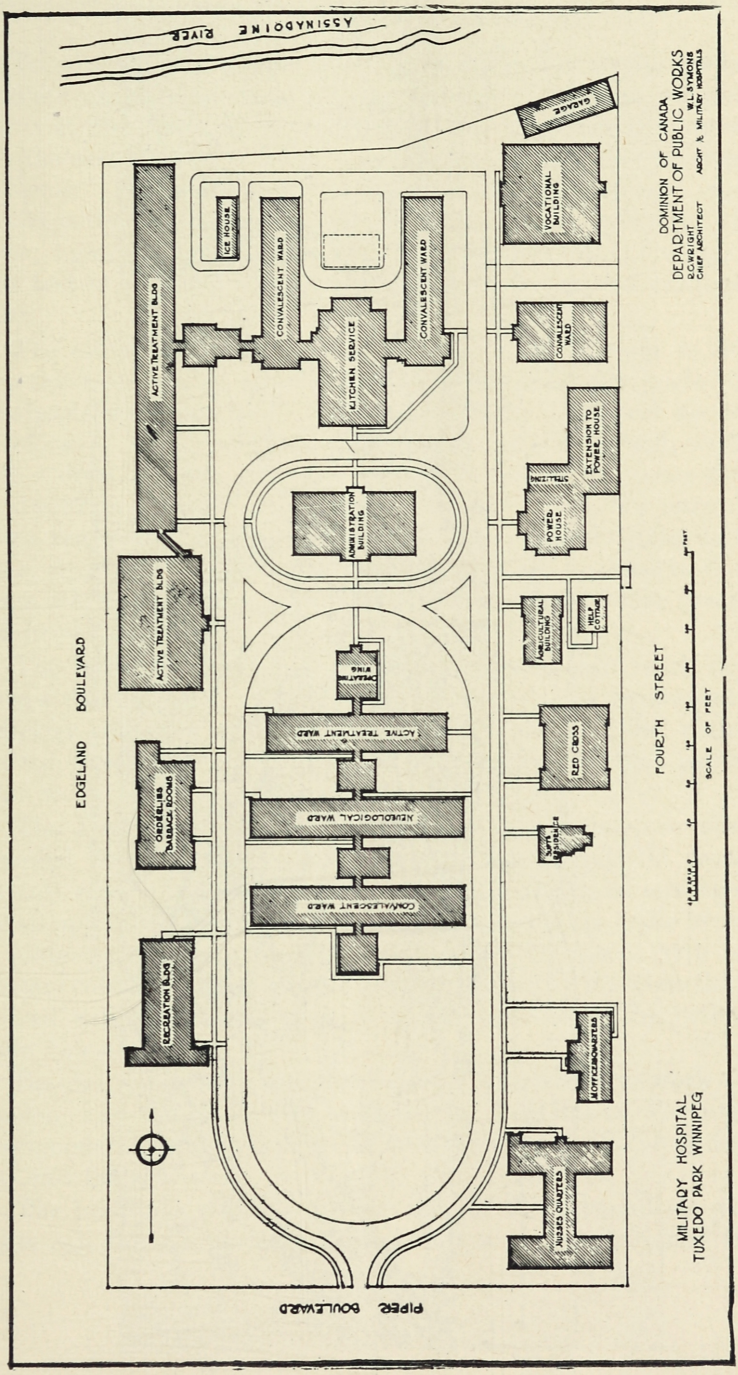
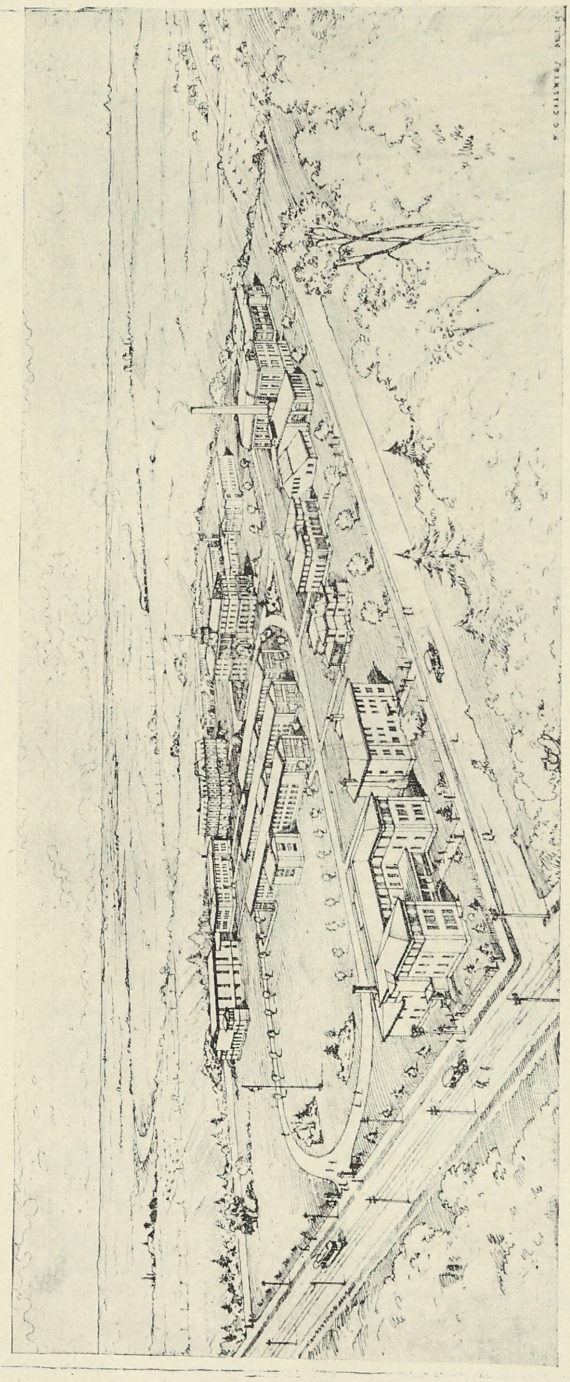


FIG. 11—BLOCK PLAN, TUXEDO PARK HOSPITAL.



TUXEDO PARK MILITARY HOSPITAL, WINNIPEG, MANITOBA.

To solve the fuel supply question an effort was always made to locate on or close to a railway siding. The most unique case is at Ste. Anne de Bellevue where the tracks are laid right over the coal bunkers. Then, too, there were other engineering problems. If the hospital was located within, or adjacent to a municipality having all the public utilities, the question of water, light, sewage disposal, etc., were simple; otherwise systems had to be installed in connection with the central heating plant.

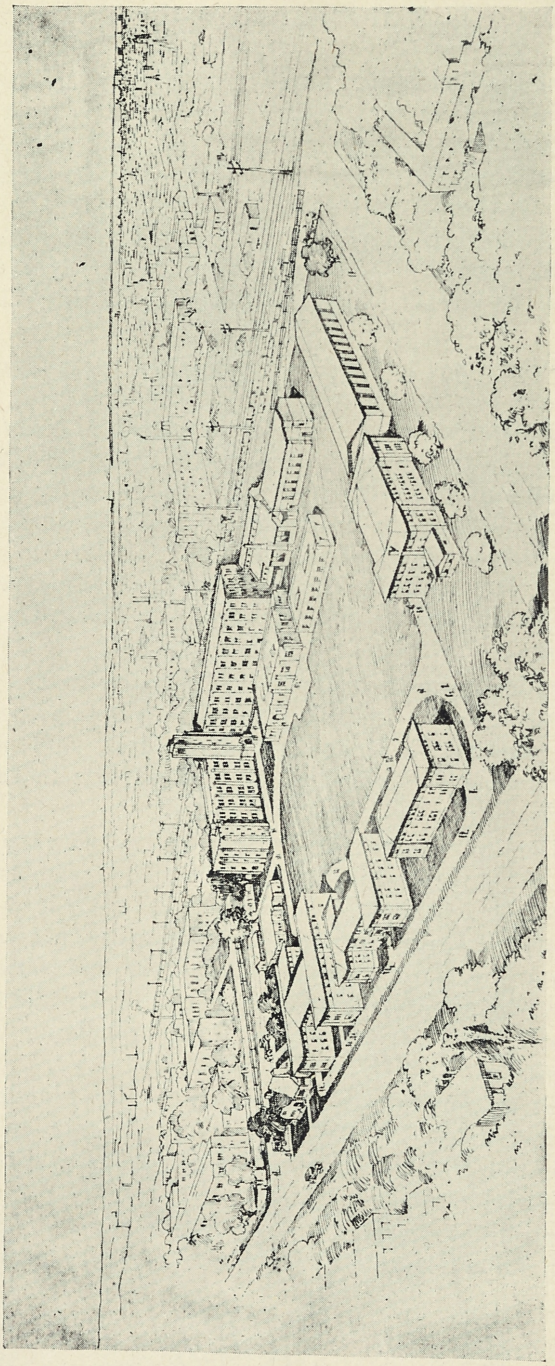
The esthetic has not been overlooked in the attempt to secure the best results, and the most possible has been made of the simple materials used. The color scheme in general use is as follows: In the wards the main walls are a light buff, with dado a deep buff and ceilings cream. In the utility rooms the woodwork is finished in dead white enamel, while the nurses' rooms are treated with various shades of sage green, light delf blues, etc. The kitchens and service rooms are finished in flat cream white, and dining-rooms generally in tones of sage green and brown.

The buildings erected at London for psychiatric work deserve a passing note. As this institution was to be permanent, a greater efficiency in planning was aimed at, and the plans evolved were made in consultation with experts in that particular work.

The Dominion Orthopedic Hospital in Toronto is also regarded as a permanent institution. The orthopedic cases not only receive treatment, whether surgical, electric or massage, but all appliances requisite for each separate case are made here. In planning the main hospital building the architects were in constant advice with experts in orthopedic work; the plan thus evolved will prove of interest to those specializing in orthopedic cases.

Besides the special accommodation for psychiatric work at London, and the orthopedic work at the Hospital in Toronto, accommodation was also provided at Ste. Anne de Bellevue for oral and facial cases.

The buildings required for the care of the tuberculosis patients call for a separate article, but it may be mentioned in



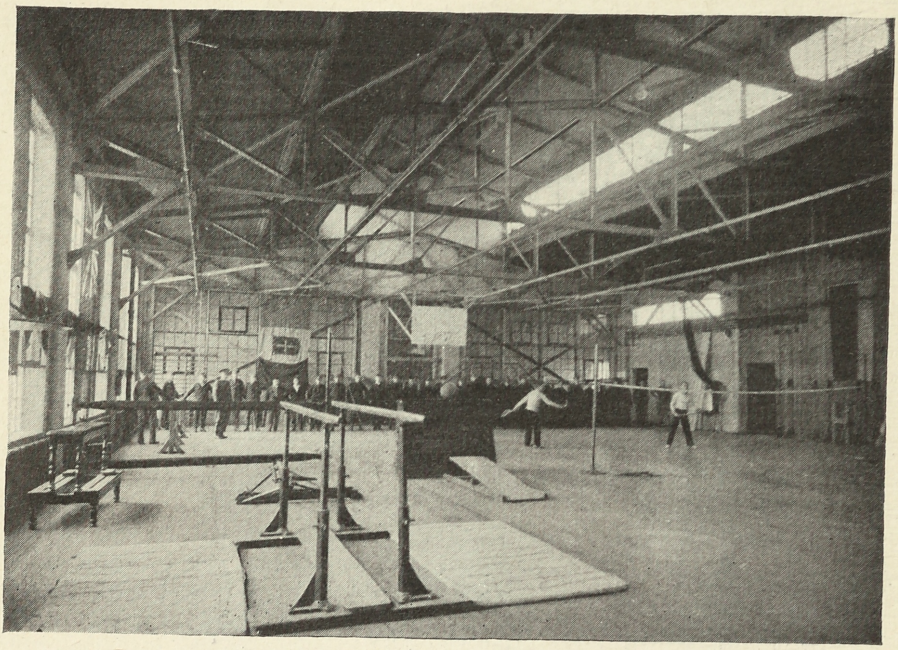
TORONTO ORTHOPEDIC MILITARY HOSPITAL.

passing that accommodation for 750 patients was erected by this department exclusive of the additional buildings erected in connection with the provincial sanatoria.

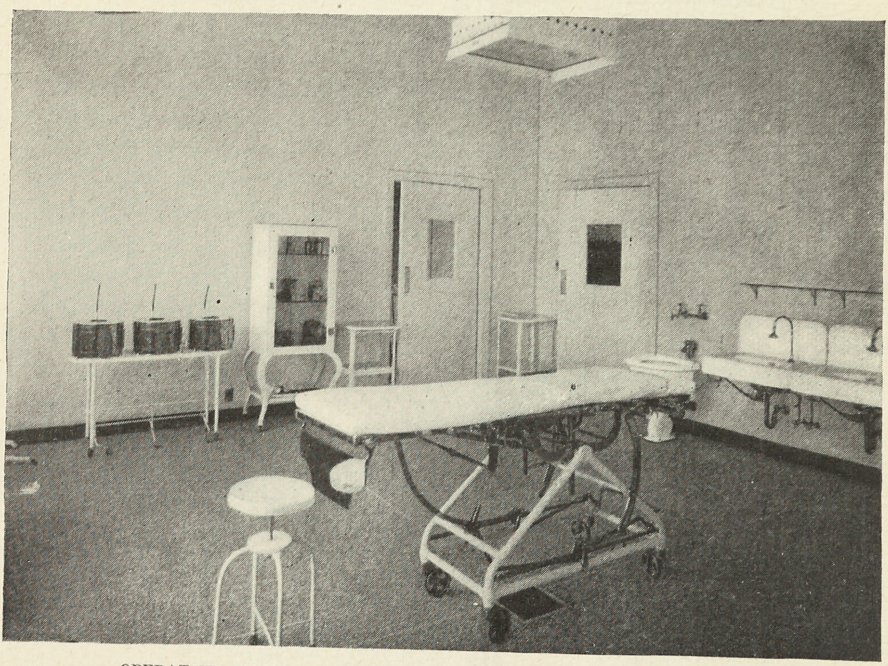
It is indeed gratifying to know that the design of the military hospitals has been so thoroughly worked out as to command the attention of other countries. Especially is it pleasing when one realizes that this large problem had to be solved in the western hemisphere without any precedent. Our friends to the south have more than once expressed their appreciation of Canada's work in this direction and frankly admit the value accruing to them from her painstaking efforts. This is due wholly to our early advent into the war which furnished the opportunity of demonstrating our ability to grasp a problem of such magnitude in a broad and wholesome manner.

The task demanded speed and thoroughness. It was not sufficient, in itself, to provide merely a shelter—the relation of the patient, food and treatment had to be considered with the fewest possible intervening motions. The site with its environment, its accessibility to friends and visiting physicians; its remoteness from disturbing influences; its privacy, was another potent factor. The impression conveyed by the appearance of the buildings as well as their general relation to each other was only another of the essential considerations. These, with many others made the matter in hand a stupendous undertaking and brings just credit to the Canadian people through the successful efforts of those upon whom this burden fell.

In other words, the military hospital work in Canada was a problem of its own, and very little assistance in its development could be obtained by studying the buildings in France or England, and the Americans were too late in the war to be of any service in this respect. They developed a one-storey hospital scheme when later it was realized that two-storey buildings were more adaptable on account of administration, maintenance and cost of erection, while in Canada the first pavilions erected were two storeys, and this scheme was carried out through the entire war time, the original plans only being altered from time to time as new requirements arose.



GYMNASIUM, TORONTO ORTHOPEDIC MILITARY HOSPITAL.



OPERATING ROOM, TORONTO ORTHOPEDIC MILITARY HOSPITAL.

Cost Per Patient's Bed.

The cost of the buildings per patient's bed in the hospitals was approximately $1,650, in this cost being included the pro rata portion of all buildings on the campus, and all utilities such as heat, light and water service, and also grading, road making and fencing. The cost of the hospital at London, on account of being of more permanent construction was about $2,500 per bed.

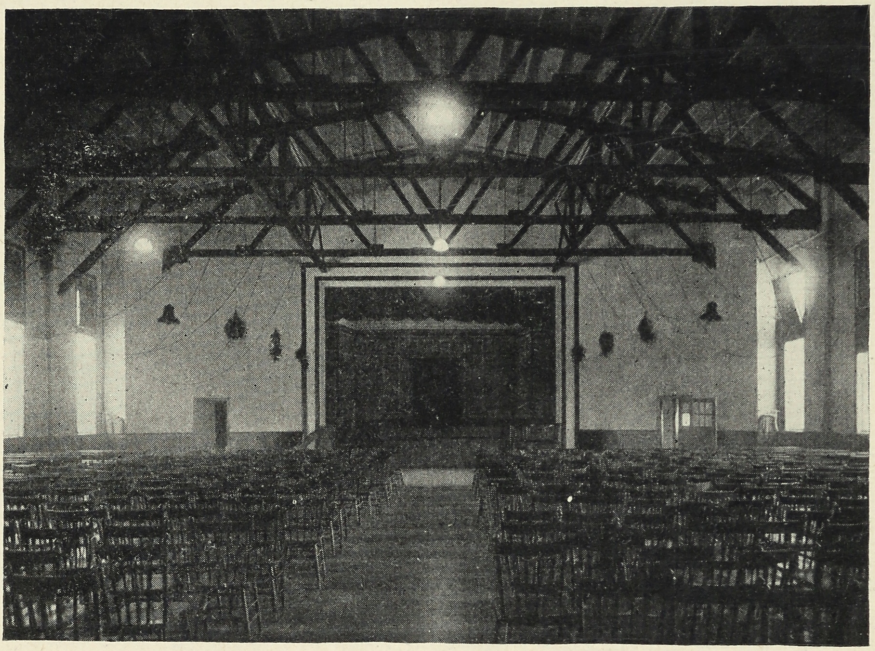
In regard to the cubic contents of the wards per bed, an average of 650 cubic feet per patient at least was maintained at all centres, and a window surface of 25 per cent. of the total wall space in each ward.

Some idea of the extent of the programme of military hospitals work may be obtained when it is realized that about $15,000,000 has been spent by the Government in this work, the bulk of the buildings being erected and equipped in the short space of eighteen months' time and that this work was carried on in over eighty different hospital centres in cities and towns throughout the Dominion.

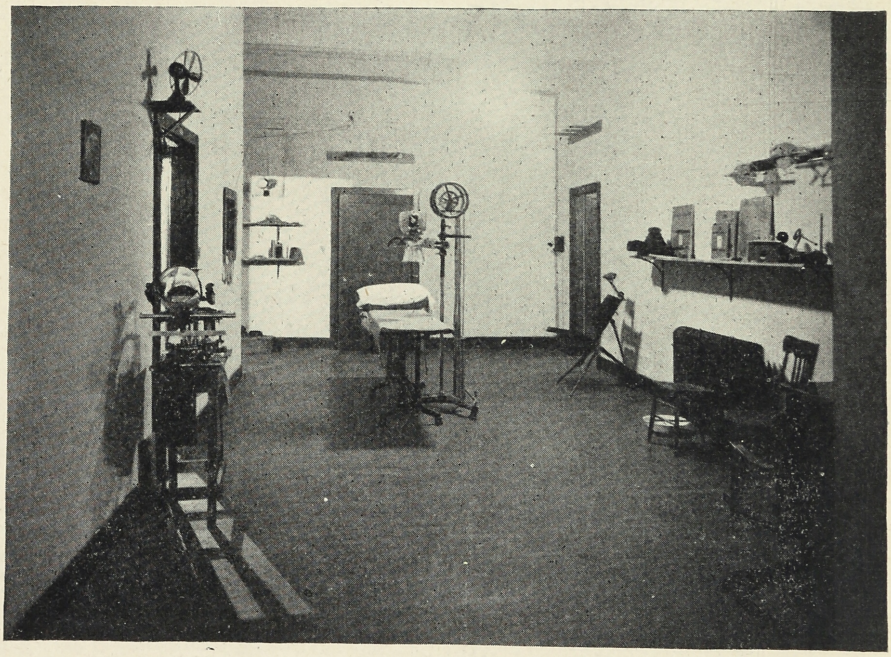
Summary.

Considering the magnitude of the project and the manifold and varied problems entering into it, the erections of war time hospitals, especially in connection with the planning of the various departments, presents certain experiences which should have an important bearing on future hospital design in general. One of the most outstanding of these was constant changes in plan necessitated by the wonderful strides made during the war in all branches of hospital work itself. This was very noticeable in the X-ray and electrical treatment departments, and also the hydrotherapy and massage departments and equally noticeable in the application of the work of these branches to psychiatric work, and in a lesser extent to that for tuberculosis treatment.

The development in providing for the housing and treatment of infectious diseases should prove of interest and value, and also that for the venereal hospitals which were almost un-



RECREATION HALL, TORONTO ORTHOPEDIC MILITARY HOSPITAL.



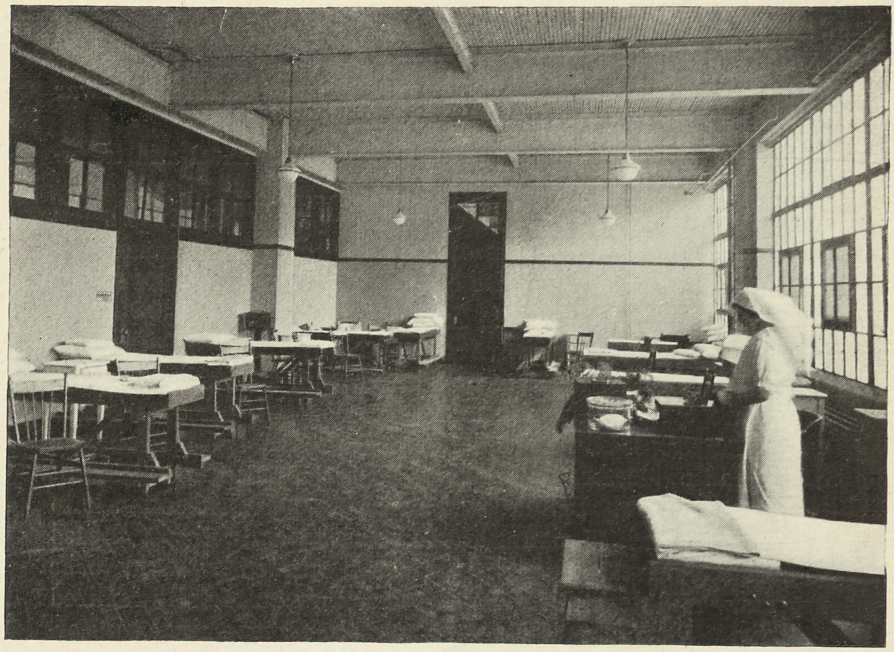
X-RAY OPERATING ROOM, TORONTO ORTHOPEDIC MILITARY HOSPITAL.

known before this time, and consequently may be termed a war product.

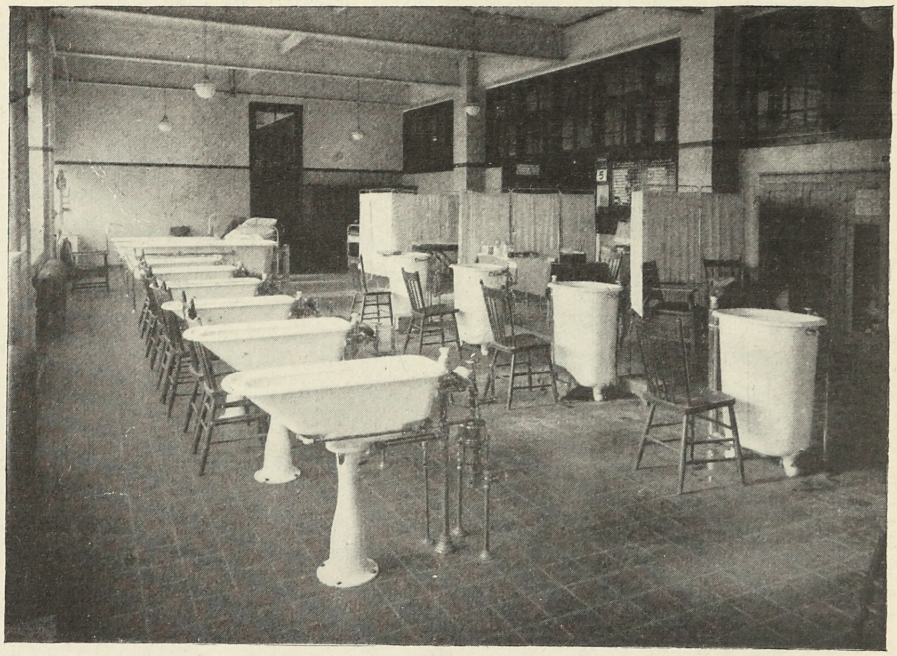
The application of vocational training to mental and tubercular patients has necessitated considerable space being set apart for this important work, in some cases separate buildings being erected, while the provision of special gymnasia in connection with orthopedic hospitals has opened up an entirely new study.

The question arises as to how far it is desirable to erect expensive buildings such as five and six-storey fireproof structures, in view of the fact that the requirements in the various departments are far from being standardized. Even the question of ward planning is still a much discussed one among medical men. Some leading doctors quite firmly maintain that the erection of two or three-storey buildings of slow burning construction is to be recommended, so planned as to be easily and quickly altered to suit important changes which are subsequently found to be necessary and desirable. In fact it is now quite fully realized that the plant and equipment of mental and tubercular sanitariums erected even as recently as ten years ago, and carefully planned at the time, fail in a large measure to meet present hospital requirements, and on account of the initial cost of the original structures, which in most cases still bears heavily against them, the administrators of these buildings find it both difficult and costly to carry out alterations desired by the medical advisers.

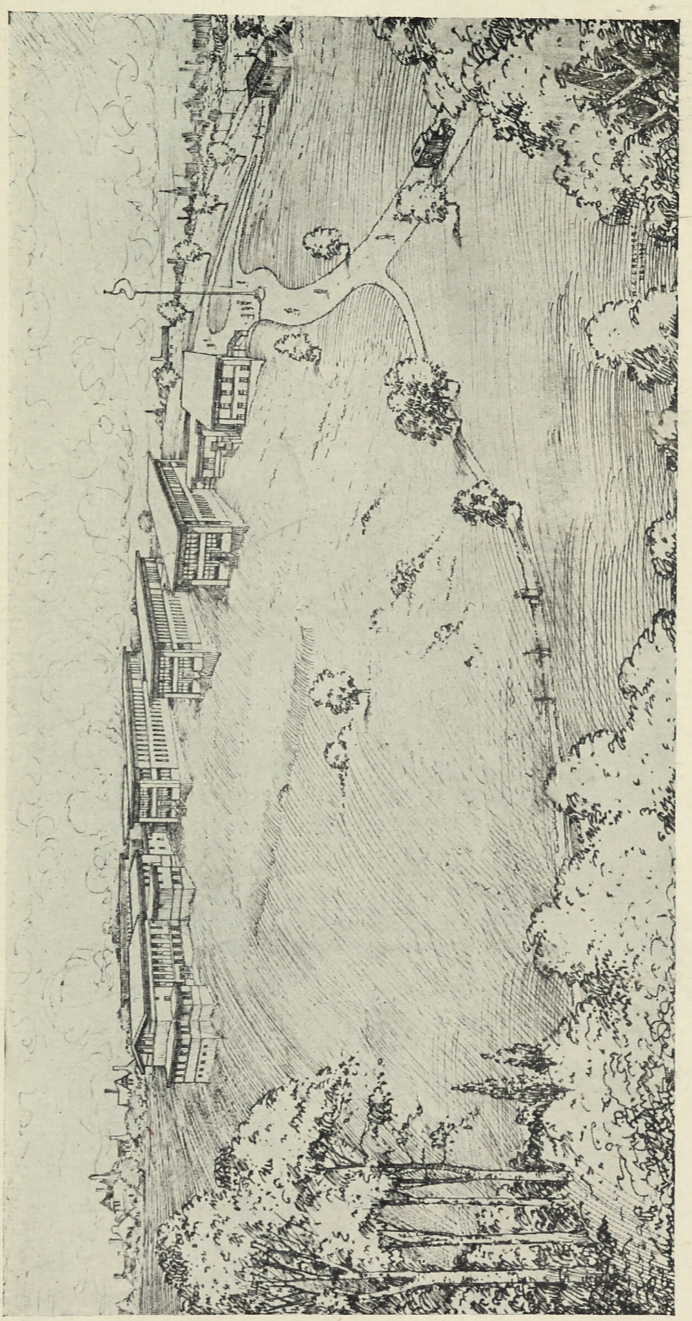
Consequently in the interests of economy and effective administration it would seem that the lesson to be learned from the erection of military hospitals in Canada is the suitability of two-storey and basement buildings for hospital work of all kinds. The low cost of $1,650 per bed for heavy wooden construction and $2,300 per bed for slow burning construction (this is war-time cost), combined with the ease and cost of administration if the buildings are properly placed in relation to each other, and the apparent low fire hazard as indicated by the fact that no loss of life or property damage from fire has been sustained during the time these hospital units have been in operation, all constitute arguments that favor large acreage for hospital sites and two or three-storey buildings.



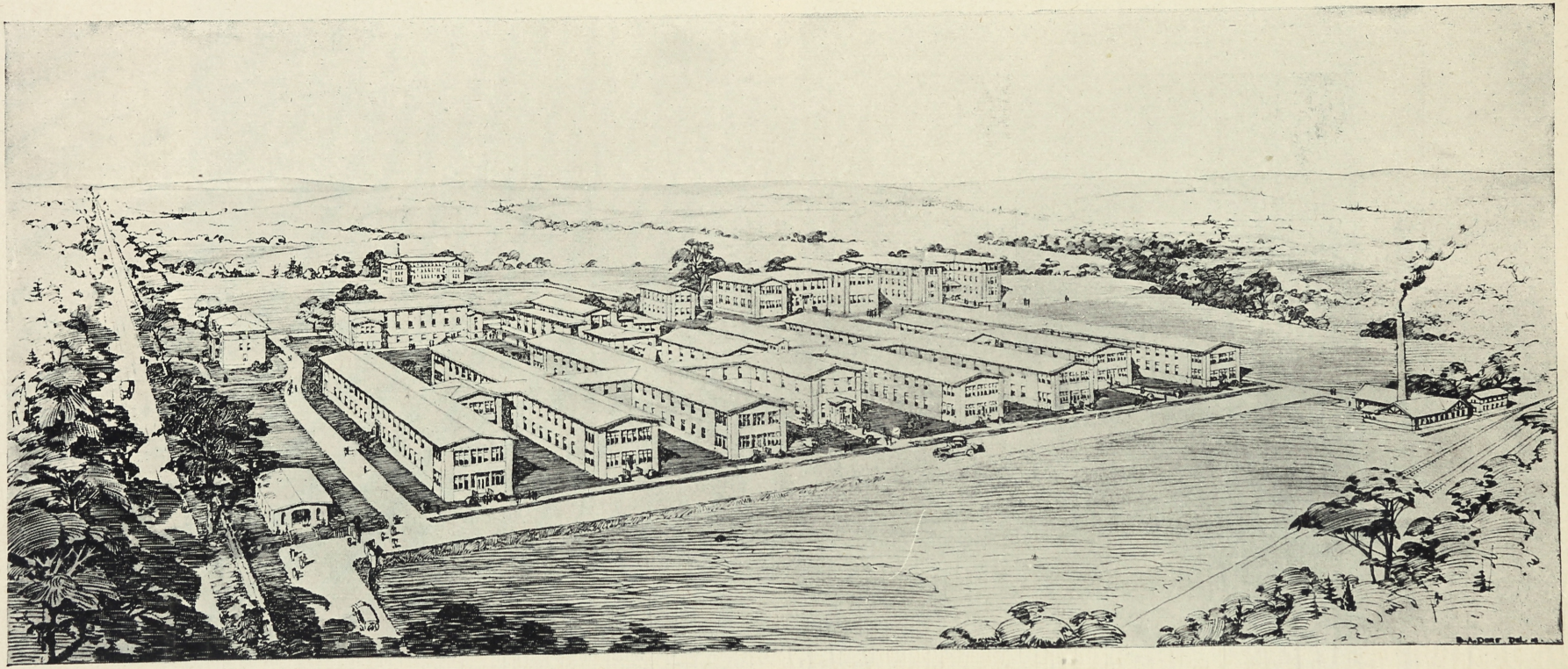
MASSAGE DEPARTMENT.



ARM AND LEG BATH AND CONTINUOUS BATHS, HYDROTHERAPY DEPARTMENT.



CAMPHILL, HALIFAX, N.S.



STE. ANNE DE BELLEVUE, P.Q.

Besides this there is another reason why these buildings should have considerable effect on future civic hospital planning and equipment, and that is the fact that they were erected, equipped and maintained out of Government monies and were thus not dependent upon civic or personal donations. Advantage was therefore taken of this fact, especially as regards equipment, to have the best that scientific research could devise or provide for the aid and recovery of the large number of patients receiving treatment. New standards have consequently been created both as regards planning and equipping which are at least revolutionary, and which will undoubtedly greatly influence all future work along these lines.

Very little loss, if any, will ensue in Canada chargeable against the expenditure of fifteen million dollars for military hospitals, as most of the buildings have been erected on permanent foundations and in such a manner as to admit of the future exterior facing of stone or brick to the upper storeys. Some hospital centres will be turned into military hospitals and barracks for the Permanent Force, others will be taken over for special work, such as mental hospitals for women and children, and altogether their planning, construction and equipment will demand that they be utilized for some good service.

In other words Canadian citizens have every reason to be grateful to find that after the "smoke of battle" they have such an unimpaired asset, in that these buildings besides fulfilling the needs of the purpose for which they were erected, have been so carried out as to enable them to successfully serve a more general use which in every way renders them of permanent value.

Canadian Hospitals

INCREASED COSTS

A MEETING of hospital workers was convened at the General Hospital recently. The object of the meeting was to formulate a request to the municipalities and the Ontario Government for increased assistance rendered necessary by the rapid advance in the cost of food, labor and equipment. The ultimate aim of the hospitals is to secure a sliding scale of per diem grants which will go up or down automatically as the cost of maintenance increases or decreases, but in the meantime the hospitals think that the municipal grant might be increased to $2 and the provincial grant to fifty cents per public ward patient per day. This would be an increase of seventy-five cents a day for the city and twenty cents for the Government.

The cost of maintaining public ward patients in the General Hospital only two years ago was $1.90 a day; last September it was $2.90, last year it averaged $3.44, and last month $3.80. The hospital last year took care of 18,000 public ward patients, who spent 215,000 days in the hospital. At $3.44 per day that meant an expenditure of $739,000. The present per diem grant was increased to $1.25 in 1916; before that it was increased from seventy cents to $1.00 in 1912 by special Act of Parliament, and before that time it was fifty cents a day for city public ward patients.

Mr. C. J. Decker, superintendent of the Toronto General Hospital, sent out for the meeting to-day seventy-eight invitations to the superintendents and representatives of hospitals, and most of them responded to the call, for all report that they are suffering in the same way as the local institutions. All the city hospitals were represented at the meeting this morning, and in addition St. Joseph's Hospital, Chatham; General and Marine Hospital in St. Catharines, Brantford General Hospital, Sarnia General Hospital, Galt General Hospital, Ottawa Gen-

eral Hospital, Welland County Hospital and Hamilton, London and Kingston Hospitals.

Mr. H. C. Tomlin, superintendent of the Western Hospital, said that the figures of the General as to costs applied pretty well to all the city hospitals. "It's not a very nice thing to have to go to the city all the time for these grants to make up deficits. It keeps the hospitals on the stingy side all the time."

While costs of maintenance have increased at St. Michael's Hospital the same as in other institutions, the per capita cost of public ward patients there has been kept down owing to the Sisters of St. Joseph giving their services free. The cost per capita in that hospital last year was only $2.21.

Made up Deficits.

Last year the city made up deficits for various hospitals as follows: Western, $14,000; Grace, $14,000; National Sanitarium, $22,000; Hospital for Sick Children, $55,000. In addition, a capital grant was made to the General Hospital of $150,000, but nothing for maintenance, although it is reported to have had a deficit of between $20,000 and $30,000.

The grants made to the hospitals since 1912 were as follows: 1912, $153,995; 1913, $241,811; 1914, $369,520; 1915, $577,944; 1916, $445,755; 1917, $466,875; 1918, $643,618; 1919 (est.), including special grants, $629,549.

Included in the civic estimates last year were deficits which the city made up as follows. In addition to paying the per diem grant per patient of $1.25; Hospital for Sick Children, $40,000; General, $16,000; Western, $5,000; National Sanitarium, $15,000; Grace, $4,800; Hospital for Incurables, $16,000; Wellesley (refund of taxes), $7,749. The sanitarium received from the Government $3.00 a week instead of the per diem allowance.

"The hospitals must receive more revenue from some source," said Dr. H. L. Brittain, who was superintendent of the General Hospital pro tem., to the *Star*. "A small hospital whose inmates are three-quarters pay patients would pay, but at the General only one-quarter are private wards. That is what makes it so difficult.

At St. Michael's Hospital it was stated that the figures given out by Mr. Decker were a fair representation of the costs of all the Toronto Hospitals. Wages have increased, according to Mr. Decker's figures, from 23 to 194 per cent. since 1917. The figures are as follows.

Butcher, 1917, $58; 1920, $85; increase 46 per cent. Carpenters (foreman), 1917, $75; 1920, $105; increase 40 per cent. Clerks (acct. office), 1917, $64; 1920, $80; increase 25 per cent. Chief engineer, 1917, $125; 1920, $175; increase 40 per cent. Chef, 1917, $90; 1920, $120; increase 33 per cent. Clerks (X-ray), 1917, $45; 1920, $61; increase 35 per cent. Cleaners, 1917, $29; 1920, $38; increase 31 per cent. Domestic, 1917, $18; 1920, $27; increase 50 per cent. Dispensary dept., 1917, $77; 1920, $125; increase 62 per cent. Elevator operators, 1917, $30; 1920, $40; increase 33 per cent. Engineers, 1917, $70; 1920, $95; increase 35 per cent. Electricians, 1917, $75; 1920, $95; increase 26 per cent. Firemen, 1917, $65; 1920, $80; increase 23 per cent. Gardeners (foreman), 1917, $65; 1920, $95; increase 44 per cent. Gardeners (asst.), 1917, $39; 1920, $50; increase 28 per cent. Garbage men, 1917, $27; 1920, $38; increase 40 per cent. Helpers (boiler rm.), 1917, $60; 1920, $70; increase 16 per cent. Kitchen help, 1917, $18; 1920, $45; increase 150 per cent. Laundry help, 1917, $17; 1920, $50; increase 194 per cent. Nurses (head), 1917, $50; 1920, $65; increase 30 per cent. Orderlies, 1917, $27; 1920, $43; increase 58 per cent. Porters (kitchen), 1917, $37; 1920, $50; increase 35 per cent. Porters (hall), 1917, $30; 1920, $40; increase 33 per cent. Painters (foreman), 1917, $75; 1920, $100; increase 33 per cent. Painters (asst.), 1917, $35; 1920, $45; increase 28 per cent. Plumbers, 1917, $70; 1920, $95; increase 35 per cent. Registrar's dept., 1917, $35; 1920, $51; increase 46 per cent. Residence (kitchen help), 1917, $18; 1920, $29; increase 61 per cent. Receiving clerk, 1917, $55; 1920, $95; increase 73 per cent. Seamstresses, 1917, $25; 1920, $35; increase 40 per cent. Telephone operators, 1917, $43; 1920, $60; increase 39 per cent. Watchman (night), 1917, $36; 1920, $55; increase 53 per cent.

Food Has Advanced.

Food in the same time has gone up from six to 300 per cent. the figures being as follows:

Spinach, 1917, $8.50; 1920, $9.50; increase 11 per cent. Tomatoes, 1917, $1.69; 1920, $1.90; increase 12 per cent. Beans, 1917, $1.30; 1920, $2.07½; increase 59 per cent. Pears, 1917, $1.30; 1920, $2.02½; increase 34 per cent. Peaches, 1917, $1.75; 1920, $3.60; increase 106 per cent. Strawberries, 1917, $2.45; 1920, $4.85; increase 98 per cent. Pears, 1917, $1.90; 1920, $4.05; increase 113 per cent. Plums, Lomb., 1917, $1.00; 1920, $3.00; increase 200 per cent. Plums, green, 1917, $1.70; 1920, $3.30; increase 88 per cent. Apples, 1917, $3.65; 1920, $6.00; increase 64 per cent. Marmalade, 1917, $2.40; 1920, $2.90; increase 20 per cent. Marmalade, 1917, 16c; 1920, 21c; increase 31 per cent. Raspberry jam, 1917, 66c; 1920, $1.05; increase 59 per cent. Peach, 1917, 71c; 1920 88c; increase 24 per cent. Strawberry, 1917, $2.90; 1920, $4.50; increase 55 per cent. Pillow cases, 1917, $3.25; 1920, $5.50; increase 63 per cent. Raspberry, 1917, $2.80; 1920, $4.25; increase 51 per cent. Asst. jams, 1917, 13½c; 1920, 17½; increase 30 per cent. Catsup, 1917, $7.00; 1920, $10.50; increase 50 per cent. Evap. apricots, 1917, 15c; 1920, 35c; increase 130 per cent. Evap. peaches, 1917, 14½c; 1920, 25½; increase 78 per cent. Prunes, 1917, 12½c; 1920, 18½c; increase 50 per cent. Raisins, 1917, 10½c; 1920, 19½c; increase 90 per cent. Uniform mat., 1917, 15c; 1920, 50½c; increase 260 per cent. Sheets, 1917, $11.25; 1920, $33.60; increase 198 per cent. Blankets, 1917, $5.50; 1920, $11.15; increase 102 per cent. Cotton towels, 1917, $2.75; 1920, $4.00; increase 52 per cent. Check towelling, 1917, 18c; 1920, 38½c; increase 111 per cent. Flour, 1917, $7.63; 1920, $13.45; increase 76 per cent. Rolled oats, 1917, $2.40; 1920, $5.00; increase 108 per cent. Rice, 1917, 05⅞c; 1920, 13½c; increase 160 per cent. Potatoes, 1917, $1.40; 1920, $4.00; increase 186 per cent. Lettuce, 1917, 25c; 1920, 35c; increase 40 per cent. Lettuce, head, 1917, $1.00; 1920, $2.25; increase 125 per cent. Parsnips, 1917, 90c; 1920, $2.00; increase 122 per cent. Onions, 1917, $1.75; 1920, $7.00; in-

crease 300 per cent. Cabbage, 1917, $1.50; 1920, $5.00; increase 233 per cent. Carrots, 1917, 65c; 1920, $2.00; increase 207 per cent. Soap, toilet, 1917, $1.10; 1920, $3.00; increase 172 per cent. Soap, chips, 1917, 13c; 1920, 20c; increase 53 per cent. Soap, laundry, 1917, $3.30; 1920, $9.25; increase 180 per cent. Soap, linseed oil, 1917, 10c; 1920, 13½c; increase 30 per cent. Absorb. cotton, 1917, 23½c; 1920, 58c; increase 152 per cent. Adhes. plaster, 1917, $1.05; 1920, $2.00; increase 98 per cent. Bellevue gauze, 1917, $11.30; 1920, $17.10; increase 51 per cent. Non-absorb. cotton, 1917, $8.00; 1920, $10.73; increase 34 per cent. Rubber gloves, 1917, $8.10; 1920, $9.90; increase 22 per cent. Alcohol, 1917, $5.61; 1920, $8.75; increase 56 per cent. Whiskey, draft, 1917, $2.60; 1920, $3.60; increase 38 per cent. Champagne, pints, 1917, $21.00; 1920, $27.00; increase 28 per cent. Brandy, 1917, $6.00; 1920, $10.00; increase 66 per cent. Sherry, 1917, $2.25; 1920, $6.70; increase 197 per cent. Electric lps., 25w, 1917, 24c; 1920, 29c; increase 21 per cent. Turpentine, 1917, 78c; 1920, $2.35; increase 201 per cent. Gasoline, 1917, 30c; 1920, 34c; increase 13 per cent. Floor wax, 1917, 30c; 1920, 43c; increase 43 per cent. X-ray plates —6½ x 8½, 1917, $1.34; 1920, $1.80; increase 35 per cent. 8 x 10, 1917, $1.94; 1920, $2.55; increase 31 per cent. 10 x 12, 1917, $3.40; 1920, $4.38; increase 28 per cent. 11 x 14, 1917, $4.85; 1920, $6.17; increase 27 per cent. 14 x 17, 1917, $7.27; 1920, $9.57; increase 33 per cent. Shrouds, 1917, $4.75; 1920, $9.75; increase 105 per cent. Doctors' suits, 1917, $48.00; 1920, $75.00; increase 60 per cent. Ward nightgowns, 1917, $9.50; 1920, $24.00; increase 152 per cent. Tabling, 1917, $1.35; 1920, $4.00; increase 196 per cent. Nurses' collars, 1917, $1.40; 1920, $2.80; increase 100 per cent. Gauze, 1917, $2.20; 1920, $6.75; increase 207 per cent. Beef, 1917, 13c; 1920, 20c; increase 54 per cent. Lamb, 1917, 20c; 1920, 28c; increase 50 per cent. Veal, 1917, 16c; 1920, 28c; increase 75 per cent. Tenderloins, 1917, 35c; 1920, 43c; increase 36 per cent. Bacon, 1917, 36c; 1920, 38c; increase 6 per cent. Cooked ham, 1917, 40c; 1920, 47c; increase 18 per cent. Chickens, 1917, 22½c; 1920, 35c; increase 59 per cent.

Ducks, 1917, 28c; 1920, 40c; increase 43 per cent. Turkeys, 1917, 27c; 1920, 59c; increase 116 per cent. Milk, 1917, 24c; 1920, 38c; increase 58 per cent. Cream, 1917, $1.20; 1920, $1.80; increase 50 per cent. Butter, 1917, 31¾c; 1920, 67c; increase 116 per cent. Eggs, 1917, 40c; 1920, 85c; increase 112 per cent. Cheese, 1917, 24c; 1920, 31c; increase 28 per cent. Klim (milkstock), 1917, 18c; 1920, 31c; increase 72 per cent. Oleomargarine, 1917, 32c; 1920, 37c; increase 15 per cent. Tea, 1917, 32½c; 1920, 53c; increase 65 per cent. Coffee, 1917, 22c; 1920, 40c; increase 82 per cent. Cocoa, 1917, 23c; 1920, 32c; increase 39 per cent. Sugar (gran.), 1917, $7.00; 1920, $14.71; increase 110 per cent. Sugar (yellow), 1917, $8.09; 1920, $14.31; increase 76 per cent. Bread, 1917, 11½c; 1920, 17c; increase 54 per cent.

Other advances are in surgical instruments, stationery supplies, telephone and gas rates, hardware, plumbing material, enamelware, paints, oils and glass, from ten to fifteen per cent. There have also been increases in dishes of forty per cent., in colors, varnishes and enamels of twenty-five per cent., and in lumber of fifty per cent.

HOSPITAL FIRE IN OTTAWA

Two lives were lost in a fire which broke out at an early hour on May 13th in Dr. Hagar's Maternity Hospital, Ottawa. The victims were both patients and they met death by smoke suffocation. All the babies were taken out by the nurses. The hospital—a three-storey brick structure—situated at the corner of Elgin and Somerset streets, was fully occupied at the time of the fire.

An investigation was made as to the origin of the fire, and it is stated steps will be taken to prevent such an occurrence elsewhere, by seeing to it that proper outside fire escapes are installed in every building where the sick are housed.

The fire chief stated that, in his opinion, the fire was due to defective wiring.

ONTARIO HOSPITALS FORM NEW ORGANIZATION

The Ontario Hospital Association, an organization composed of fifty-five hospitals, has been formed. It is planned to issue literature to educate the public as to what hospitals are doing for the public. Barry Hayes, of the Toronto Carpet Co., has been elected President. C. J. Decker, of the Toronto General Hospital, has been appointed secretary-treasurer.

A central purchasing agency will be formed for all hospitals. Closer co-operation in the future is advocated. It is the aim of the hospitals to purchase materials cheaper by standardizing such things as towels, sheets and buying large stores of coal, sugar, flour and jams, etc.

NURSES GRADUATE AT ST. MICHAEL'S HOSPITAL

The graduating exercises of the 1920 nurses' class at St. Michael's Hospital, Toronto, were held on May 8, with Dr. McKeown in the chair. Archbishop McNeil presented the medals and diplomas. Those invited to address the class were Mayor Church, Rev. Father Cline, Dr. E. E. King, Dr. Glover, Controller Gibbons, Rev. Father Bench, Dr. Loudon and Dr. Guinane. The thirty-one graduates are: Misses Ann Sargent, Aileen O'Connor, Mae Brennan, Hazel Cunningham, Marguerite Manley, Elma Purtle, Mary Moreau, Julia Kerr, Florence O'Rielly, Cecilia Ryan, Marie McEnaney, Gertrude Heck, Mary Leonard, Harriet Grogan and Ethel Crocker, all of Toronto; Marie Barry, Loretto; Bessie Carey, Grafton; Helen Brosnan, Kearney; Eva Hacker, Cobalt; Isabel McGurn, Marysville; Mary Teresa Missiaen, Cobourg; Esther Pigeon, Stratford; Sophia Searson, Hyndford; Margaret Sullivan, Arnprior; Mary Madigan, Port Credit; Catherine O'Donnell, Copper Cliff; Emily McCarron, Guelph; Loretto O'Connor, Gananoque; Kathleen Sweeney, Moncton, N.B.; Susan Brisbois, Cache Bay; Helen McGrath, Atherley.

DR. D. A. CRAIG GOES TO HALIFAX POSITION

Dr. D. A. Craig, formerly Medical Superintendent of Queen Alexandra Sanatorium, London, and later consultant in diseases of the chest for Military District No. 1, left London early in May to accept an important post at Halifax as Medical Consultant on the staff of the Massachusetts-Halifax Health Commission. Dr. Craig has been prominent in the social life of London, and he has achieved a high position in the medical profession in London and Western Ontario. He is Vice-President and former Secretary of the West Ontario Academy of Medicine, which he was instrumental in organizing. His services during the war as consulting physician in tuberculosis for the A.M.C. of Military District No. 1 merited official commendation. Recently he was offered a fellowship in the American College of Physicians.

NEW HOSPITAL FOR SAULT STE. MARIE

"Lynnhurst," the beautiful home of the late W. H. Plummer, has been presented by the Plummer estate to the Algoma Benevolent Hospital Association, Sault Ste. Marie, Ont., for conversion into a hospital, to be known as the Plummer Memorial Hospital. The property is valued at $30,000.

VOLUNTARY BRITISH HOSPITALS

At a public health meeting in Oxford, Eng., as reported in the *Scotsman*, Sir Arthur Stanley, Chairman of the Joint Committee of the British Red Cross and the Order of St. John, said the finest legacy the war had left us was the new spirit there was in all kinds of public work, especially public health work. There were people who thought hospitals should no longer be a charge on voluntary effort, but should be put on the rates. Would it be a really good thing that the voluntary system should come to an end? He said emphatically "No." It would be a disaster to the country if that magnificent system of hospital treatment, which had grown up voluntarily, were allowed to die

down for want of support. He believed if they took the people in the right way and interested them, it was just as possible to get financial support for the hospitals now as it was for military and auxiliary hospitals during the war. It was almost impossible to get exact figures, but something under ten per cent. of the whole population subscribed in any way to the hospitals at present. He looked to the State for some support, but infinitely more to the public. He looked forward to the most harmonious working of the State and the voluntary workers, who had done good service during the war, and were just as willing to do it in future.

HOSPITAL FINANCE

The following letter appearing in the *Edinburg Scotsman* gives one an idea of some of the difficulties old country hospital authorities have.

Sir.—The appeal by the Lord Provost of Edinburgh for funds in aid of the Royal Infirmary appears to-day, and many other hospitals throughout the country are making similar appeals, as has been shown by the requests made on behalf of St. Bartholomew's and Guy's Hospitals in London.

But, sir, it appears to me that the time has arrived when we must reconsider the whole economic position of hospital finance and administration in the light of present-day wages, especially the wages received by Labor as compared with the salaries of the professional and middle classes.

In the first place, there can be no doubt that a very large proportion of those who receive absolutely free the benefits of the Royal Infirmary are quite able to contribute a sum towards its maintenance, which in the aggregate would be very considerable, and not infrequently many of those attending to the patients (I do not mean students) are earning less than is coming into the houses from which the patients are brought.

If Labor is to acquire the position it demands in the political economy of the nation it must also accept its burdens and responsibilities; but Labor seems determined to acquire all it can and give nothing in return, as witness the wholesale attempt to

evade payment of income-tax, the restriction of output in order to keep up wages, to the detriment of the country's wealth, the limitation of the number and restriction as to age of apprentices, and the exclusion of ex-service men from workshops, all for its own selfish ends, regardless of the tyranny and its tragic cruelty. There is another point. The great majority of the people who receive benefit from the Royal Infirmary are people who never contribute, although now able to do so; whereas the people who are asked to contribute, and do give, seldom get or ask for its skill and shelter. These are the people who live in the so-called middle-class houses, and who, with present-day rates and taxes, are in truth the poor of the community.

Let the canvassers by all means get what they can from the small villa residenters, but let them also call on the great factories, the workshops, and wealthy shipyards.

Further, I would suggest that in all cases, except the very poorest, a levy of, say 10s. per week should be made on all patients occupying beds in the Infirmary; that the out-patients should be asked to contribute; and that practically all the side rooms should be set apart for patients paying a much higher charge. I shall be told that the Royal Infirmary is a teaching school, and that material will not be available if this plan be adopted. I do not agree. The practice is carried out in Canada and in our Colonies, and has been found eminently satisfactory and equitable.

We cannot have voluntary charity on the same scale as formerly, when the burden of compulsory charity (?) is so great. The old order changeth, and our economic conditions must change likewise, if we are to continue the beneficent work of these noble institutions; and those who benefit must contribute. I am, etc.,

A Practitioner of Medicine.

Planning to raise from $75,000 to $100,000 with which to rebuild Essex County Tuberculosis Hospital, Kingsville, Ont., burned down early in May, the Daughters of the Empire will institute a campaign in the county from May 31 to June 5. The Chamber of Commerce and other organizations will co-operate.

Book Reviews

A Nurse's Handbook of Obstetrics. By Joseph Brown Cooke, M.D., fellow of the New York Obstetrical Society, 9th Edition, revised and enlarged, by Carolyn E. Gray, R. N., Superintendent of City Hospital School of Nursing, Blackwell's Island, and Philip F. Williams, M.D., Instructor in Obstetrics, School of Medicine, University of Pennsylvania. 189 illustrations and four full page in color. Philadelphia and London. J. B. Lippincott Company.

A very instructive book. Opposite the title page in color one sees every step of how to dress the umbilical cord illustrated. The photographs of the child in delivery commencing as soon as the head presents are better than hours of verbal description—oral or written. Pictures of the doctor examining the placenta, and inducing artificial respiration; pictures of spina bifida, ophthalmia neonatorum (colored), stools (colored), massaging the breast, giving saline infusions, inflating the cervix with Barne's bag, passing catheter; these and many other illustrations are most informative to the young nurse and medical student. The text is presented concisely and plainly and appeals to us as one of the best works for nurses we have had the pleasure of examining.

Hospital Jock: Tales of the Malta Hospitals by Albert G. MacKinnon, Major-Chaplain, Senior Presbyterian Chaplain in Malta during the period of the war. London: 38 Soho Square, W. I. W. & R. Chambers, Limited, Edinburgh: 339 High Street.

This series of sixteen capital stories opens with Jock's neebors. Jock was a patient in hospital. His first neebor was one Graham from Kilmachie, whose vessel was blown to pieces by a torpedo which "glided into oor compairtment something verra like a shark," burst and smashed things awfully. "Chairs an'

bits of tables were dashed aboot in the swirl." The cabin filled with the sea rushing in. Jock couldna swim, but was floated up to a sma' opening through which the smashed furniture was trying to scramble oot. As he squeezed through he did a verra mean thing, which he divulges later. He struggled up the companion wey swallowin' water, choking an' giein' himself up for lost, when a haund gripped him and got him into a boat; but, horrors! it was drawn into the thrashing propeller blades and smashed to bits, the occupants being thrown violently into the churning sea. Jock escaped the devouring suction. He had no life belt—a lucky thing, as it enabled him to escape through the sma' hole in the ceiling of his cabin and made him such an object of pity that the skipper pulled him into a life boat more dead than alive.

"Ye're gey hard to kill," was Jock's consolation. "If the torpedo an' propeller failed to dae for ye, I'm thinkin' ye'll get through the doctor's haunds a'richt. Ye'll no be frae verra far north?"

"Kilmachie," replied Graham, "if ye ken whaur that is, an' its whaur I wud like to be the noo."

"Wi' some bonnie lassie, I'll wager."

"Maybe, only man, my conscience is no richt. I never thocht afore it could gie a man sae muckle trouble."

"What hae ye been daein'?"

"No playin' the game. That's hoo best to put it."

"Fechtin?"

"Na; coortin. I hae ta'en a mean advantage an' noo that I hae won I wud raither hae lost in a clean contest."

Graham with his bandaged heid turned over in bed and tried to go to sleep. But no. Later on in the night he called to Jock, who was lying awake, that he had made his wull. "There's no fear o' yer dien," said Jock, "it's only those wha forget aboot wulls that are taken sudden like. That's hoo the lawyers thrive; they maun hae a secret compact wi' the deil to tak' the wull-less ones first, an' gie those left something to quarrel ower."

Graham then told Jock that he had left his property—a nice farm—to one Dugald M'Callum. They had been lads

thegither and both had fallen in love with bonnie Mary M'Millan. This led to a fall oot. M'Callum was poor, but handsome. Graham was prosperous, but as his rival told Mary, had such awfu' nose and ears. This was the last straw for Graham.

They both enlisted and never spoke to the ither until they discovered each ither on the ill-fated transport.

Graham continued: "He was lying in a hammock no five yairds frae me when the torpedo struck us. I saw him tumble intil the water juist behind me; an' when I was fetching my wey up to the opening I felt the grip of his haund. I micht hae pulled him oot, but I thocht what a puir time Mary wud hae if fool enouch to marry a man wi'oot a penny, sae, to save her—an' oot o' a bit o' revenge, I gied him a veecious kick that sent him under, an' he never rose again. If I met Dugald in the next warld I wud like to be able to tell him I'd done the best for him."

"I understand," responded Jock. "Noo, gang to sleep; an' dinna fash yersel' aboot the wull."

For the wonderful sequel to this interesting yarn and the perusal of the ithers, the reader is referred to Chambers Co. mentioned in paragraph I.

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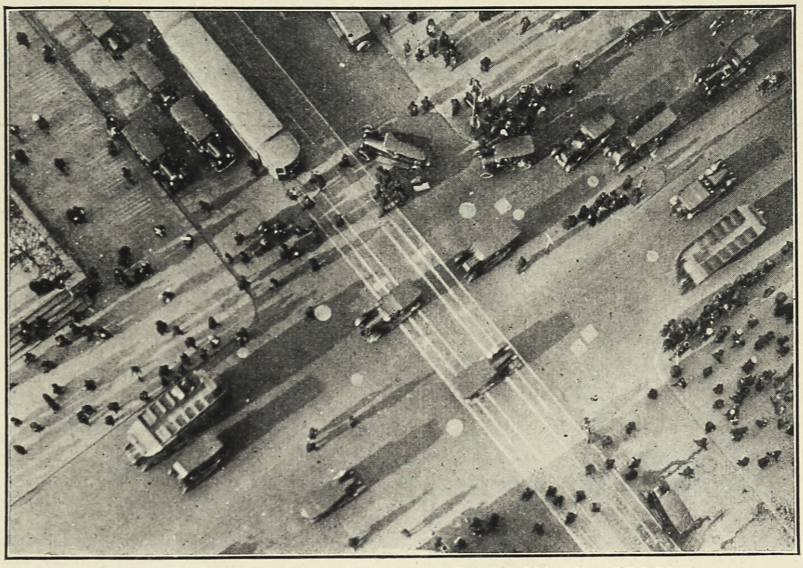
THE women of the Province of Ontario are said to be contemplating an attack on the cigarette, with a view to legislating it out of existence. Little support will be forthcoming for such a crusade. Canada's returned soldiers regard the cigarette as indispensable, and the official organ of the Great War Veterans says in a recent issue:—"The moderate use of tobacco is harmless. It is a habit which is indulged in by most red-blooded men." The cigarette is the purest form in which tobacco can be smoked.

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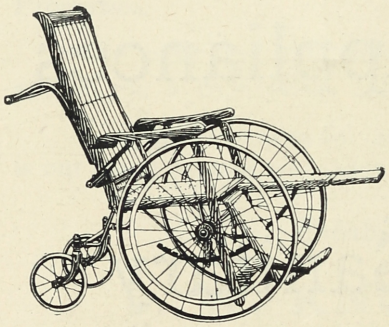
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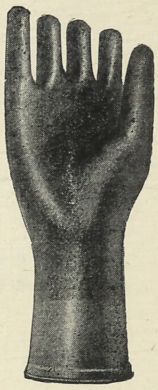
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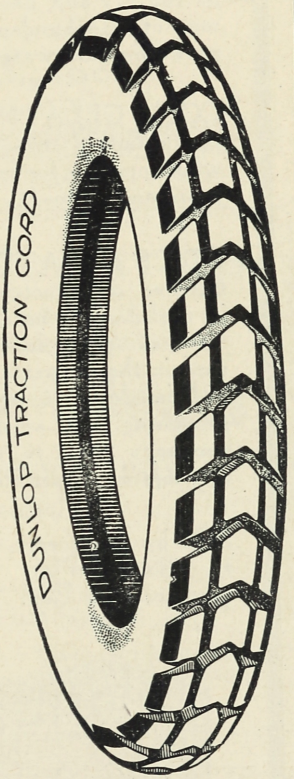
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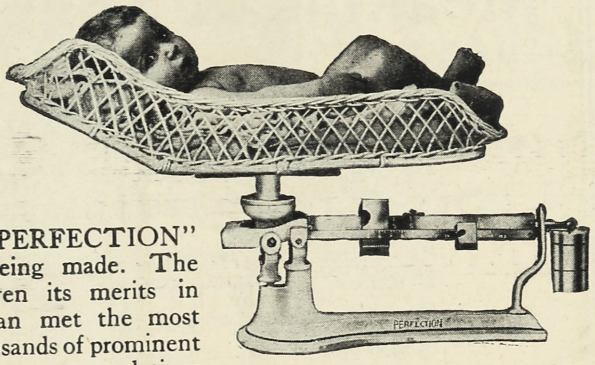
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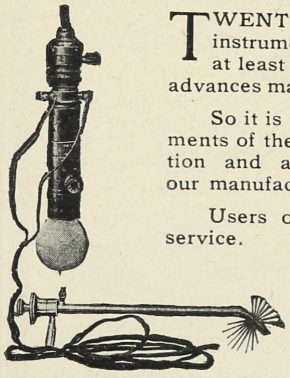
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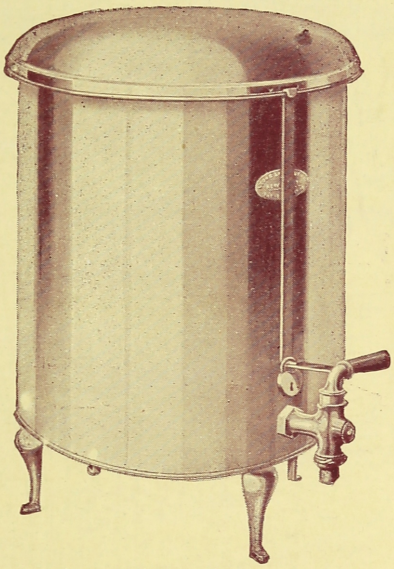
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